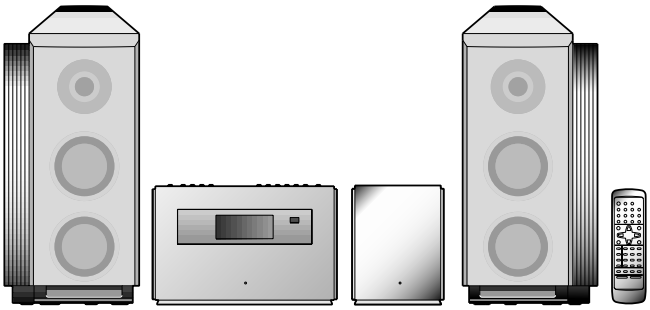
SHARP SERVICE MANUAL

No. S2109SDNX10H/



1-BIT DIGITAL AUDIO SYSTEM

MODEL SD-NX10H

SAVING ENERGY STAND-BY POWER CONSUMPTION 0.6w

COMPACT disc DIGITAL AUDIO

R·D·S EON

MDLP

Mini Disc

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified should be used.

The power of this unit is supplied from the amplifying unit via the system connection cable. It does not operate by itself.

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SHARP CORPORATION

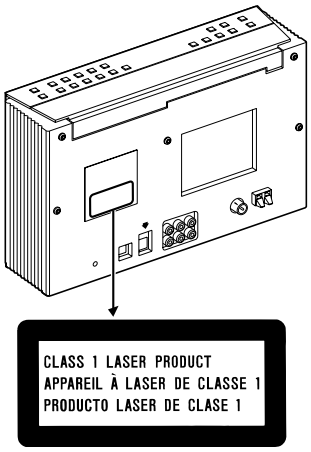
This document has been published to be used for after sales service only.
The contents are subject to change without notice.

SAFETY PRECAUTION FOR SERVICE MANUAL

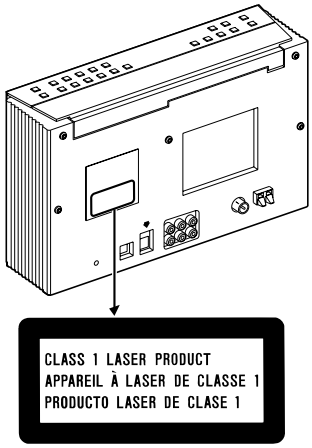
The AEL (ACCESSIBLE EMISSION LEVEL) of the laser power output is less than class 1 but the laser component is capable of emitting radiation exceeding the limit for class 1. Therefore it is important that the following precautions are observer during servicing to protect your eyes against exposure to the laser beam.

(1) When the unit case cover is removed and LOADING SW (SW1932) is turned on and then PLAY SW (SW1934 mechanism PWB) is turned on in a few second.
The laser will light for several second to detect a disk.
(2) The laser power output of the pickup unit and replacement service parts are all factory preset before shipment.
Do not attempt to readjust the laser pickup unit during replacement or servicing.
(3) Under no circumstances stare into the pickup lens at any time.
(4) If laser optical unit becomes faulty, replace the complete laser optical unit.
(5) CAUTION-USE of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

(For U.K.)

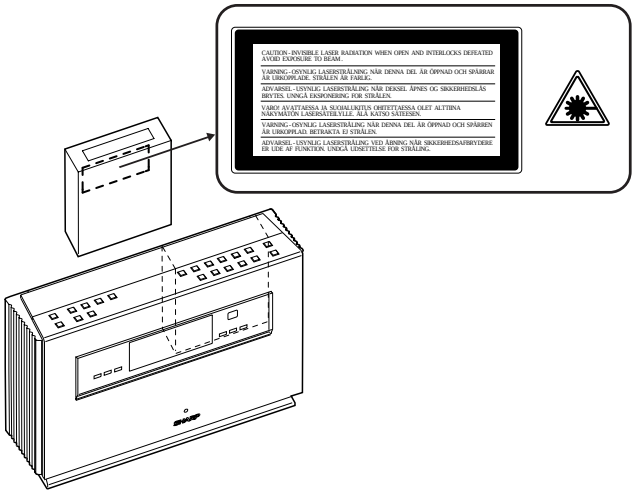


(Except for U.K.)



LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
LASER TŘÍDY 1
LASER TRIEDY 1

Laser Diode Properties
- Material: GaAlAs
- Wavelength: 785 nm
- Pulse time:
  Read mode: 0.8 mW Continuous
  Write mode: max 10 mW 0.5S
  min cycle 1.5S
  Repetition


CAUTION -INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED AVOID EXPOSURE TO BEAM.
VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRRAR ÄR URKOPPLADE. STRÅLEN ÄR FARLIG.
ADVARSEL - USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHETSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VAROI AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVARSEL - USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAI NITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VARNING - OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERAS. KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

VARO ! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING! Osynlig laserstralning när denna del är öppnad och spärren är urkopplad. Betrakta ej strälen.

Precaution to be taken when replacing and servicing the laser pickup.
The following precautions must be observed during servicing to protect your eyesvagainst exposure to the laser.
Warning of possible eye damage when repairing:
If the AC power plug is connected when the inner cover of the unit is removed, the laser will light up during focus access (about 1 second) (Fig. 3-1).
During this operation, the laser will leak from the opening between the magnetic head and cartridge holder (Fig. 3-2).
In order to protect your eyes, you must not look at the laser during repair.
Before repairing, be sure to disconnect the AC power plug.

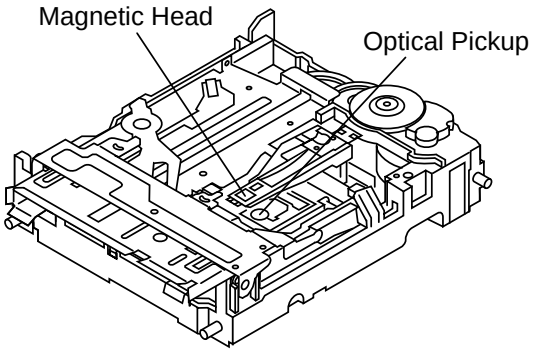


Figure 3-1

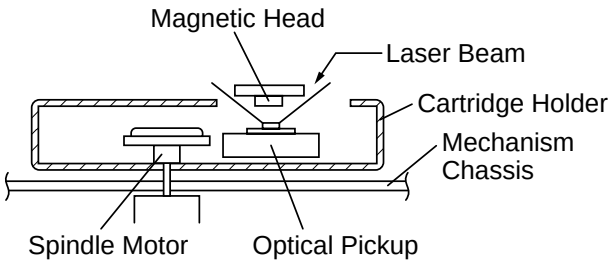
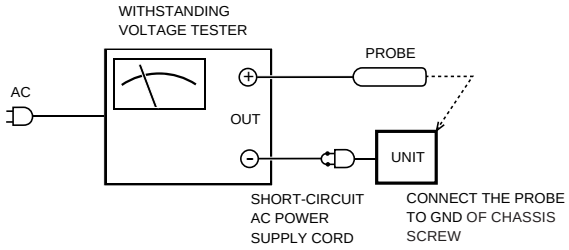


Figure 3-2

IMPORTANT SERVICE NOTES (FOR U.K. ONLY)

Before returning the unit to the customer after completion of a repair or adjustment it is necessary for the following withstand voltage test to be applied to ensure the unit is safe for the customer to use.
Setting of Withstanding Voltage Tester and set.

Set name	set value
Withstanding Voltage Tester	
Test voltage	4,240 VPEAK 3,000 VRMS
Set time	6 secs
Set current (Cutoff current)	4 mA
Unit	
Judgment	
OK: The “GOOD” lamp lights. NG: The “NG” lamp lights and the buzzer sounds.	



FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

SD-NX10H

■ General

Power source	AC 230 V, 50 Hz
Power consumption	Power on: 54 W Power stand-by: 0.6 W (*)
Dimensions	**MD/CD/tuner unit** Width: 318 mm (12-9/16") Height: 210 mm (8-5/16") Depth: 93 mm (3-11/16")
	Amplifier unit Width: 160 mm (6-5/16") Height: 210 mm (8-5/16") Depth: 136 mm (5-3/8")
Weight	**MD/CD/tuner unit** 3.7 kg (8.2 lbs.)
	Amplifier unit 3.5 kg (7.7 lbs.)
Input/output terminals	**MD/CD/tuner unit** Auxiliary input: 500 mV/47 kohms Digital input (optical) System output (RCA) Line output: 500 mV/47 kohms Headphones: 16 - 50 ohms (recommended: 32 ohms) System control (SD-NX10H amplifier unit only)
	Amplifier unit System input (RCA) Speakers; 6 ohms System control (SD-NX10H MD/CD/tuner unit only)

(*) This power consumption value is obtained when the demonstration mode is cancelled in the power stand-by mode. Cancel the demonstration mode.

■ Amplifier

Amplification system	64fs 1-bit switching (Remarks:fs = 44.1 kHz)
Rated output power	RMS: 50 W (25 W + 25 W) (DIN 45 324)
A/D noise shaping	7th-order ⊿Σ(delta - sigma) modulation

■ CD player

Type	1-disc slot-in type compact disc player
Signal readout	Non-contact, 3-beam semiconductor laser pickup
D/A converter	1-bit D/A converter
Frequency response	20 - 20,000 Hz
Dynamic range	90 dB (1 kHz)

■ MiniDisc

Type	MiniDisc Recorder
Signal readout	Non-contact, 3-beam semiconductor laser pickup
Rotation speed	400 - 900 rpm CLV, Approx.
Error correction	ACIRC (Advanced Cross Interleave Reed-Solomon Code)
Quantization	20-bit linear (A/D converter)
Coding	ATRAC (Adaptive TRansform Acoustic Coding), ATRAC 3
Sampling frequency	44.1 kHz
Recording method	Magnetic modulation overwrite method
Frequency response	20 - 20,000 Hz
D/A converter	1-bit D/A converter
Wow and flutter	Unmeasurable (less than 0.001% W. peak)
Signal/noise ratio	95 dB (1 kHz)
Dynamic range	90 dB (1 kHz)
Audio channel	Stereo: 2 channels (SP, LP2, LP4) Monaural: 1 channel (MONO)

■ Tuner

Frequency range	FM: 87.5 - 108 MHz AM: 522 - 1,620 kHz

CP-NX10H

Type	2-way type speaker system 3 cm (1-3/16") Tweeter 10 cm (4") Woofer
Maximum input power	50 W
Rated input power	25 W
Impedance	6 ohms
Dimensions	Width: 187 mm (7-3/8") Height: 423 mm (16-11/16") Depth: 200 mm (7-7/8")
Weight	3.7 kg (8.2 lbs.)/each

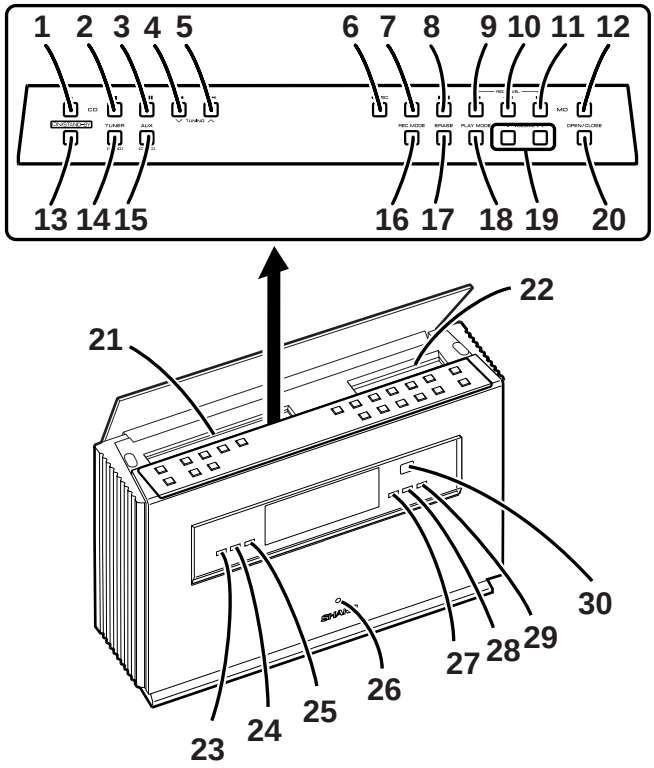
Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

SD-NX10H

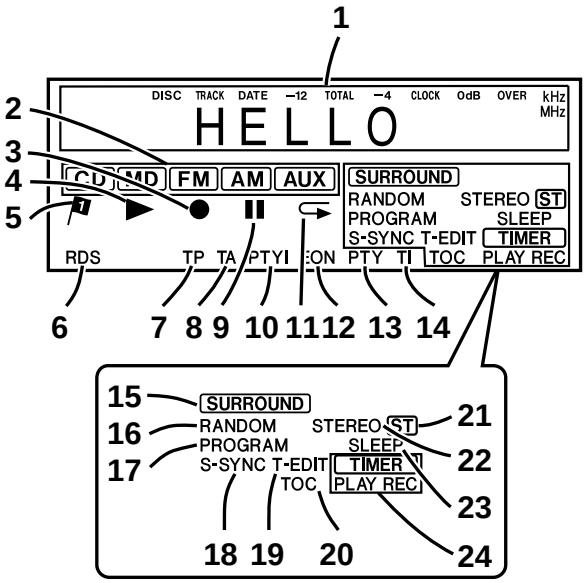
■ MD/CD/tuner unit front panel

1. CD Eject Button
2. CD Stop Button
3. CD Play/Pause Button
4. CD Fast Reverse/Tuning Down Button
5. CD Fast Forward/Tuning Up
6. MD Record Button
7. MD Stop Button
8. MD Play/Pause Button
9. MD Recording Level/MD Fast Reverse Button
10. MD +10 Track Up Button
11. MD Recording Level/MD Fast Forward Button
12. MD Eject Button
13. On/Stand-by Button
14. Tuner (Band) Button
15. Auxiliary/Demo Button
16. MD Record Mode Button
17. Erase Button
18. CD/MD Play Mode Select Button
19. Volume Up or Down Button
20. CD/MD Cover Open/Close Button
21. CD Compartment
22. MD Compartment
23. Timer Indicator
24. Sleep Indicator
25. Monaural Recording Indicator
26. Power Indicator
27. Stereo Recording Indicator
28. 2 times Long Recording (stereo) Indicator
29. 4 times Long Recording (stereo) Indicator
30. Remote Sensor



■ Multi-function LCD display

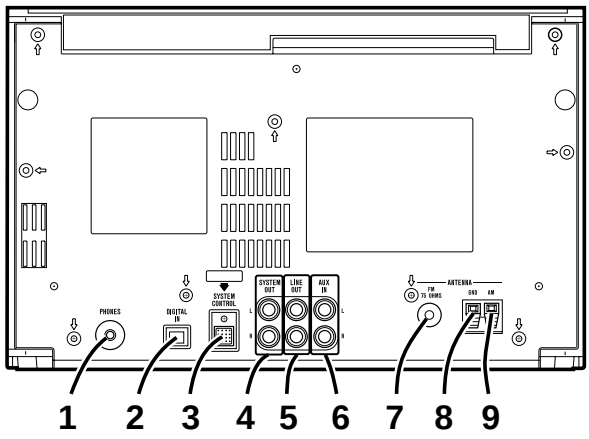
1. Level Meter/Character Information/Frequency Indicator
2. Function Indicator
3. Record Indicator
4. CD/MD Play Indicator
5. Top Position Indicator
6. RDS Indicator
7. Traffic Programme Indicator
8. Traffic Announcement Indicator
9. MD Record Pause Indicator
10. Dynamic PTY Indicator
11. CD/MD Repeat Indicator
12. EON Indicator
13. Programme Type Indicator
14. Traffic Information Indicator
15. Surround Indicator
16. Random Play Indicator
17. Programme Play Indicator
18. Sound Synchronised Recording Indicator
19. Track Edit Indicator
20. TOC Indicator
21. FM Stereo Indicator
22. FM Stereo Mode Indicator
23. Sleep Indicator
24. Timer Play/Recording Indicator


1
DISC TRACK DATE −12 TOTAL −4 CLOCK OdB OVER kHz MHz
HELLO
2 3 4 5
CD MD FM AM AUX
SURROUND
RANDOM STEREO ST
PROGRAM SLEEP
S-SYNC T-EDIT TIMER
RDS TP TA PTYI EON PTY TI TOC PLAY REC
6 7 8 9 10 11 12 13 14
15 16 17
SURROUND
RANDOM STEREO ST
PROGRAM SLEEP
S-SYNC T-EDIT TIMER
TOC PLAY REC
18 19 20 21 22 23 24

SD-NX10H

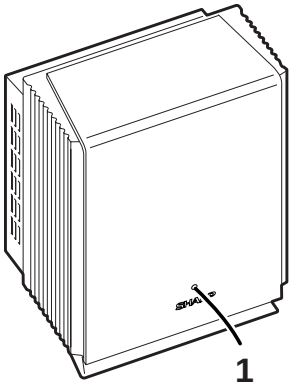
■ MD/CD/tuner unit rear panel

1. Headphone Socket
2. Digital Input Socket
3. System Control Socket
4. System Output Sockets
5. Line Output Sockets
6. Auxiliary Input Sockets
7. FM 75 Ohms Aerial Socket
8. Aerial Earth Terminal
9. AM Loop Aerial Terminal



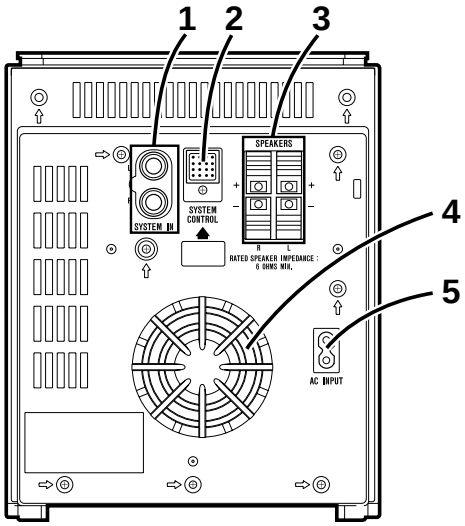
■ Amplifier unit front panel

1. Power Indicator



■ Amplifier unit rear panel

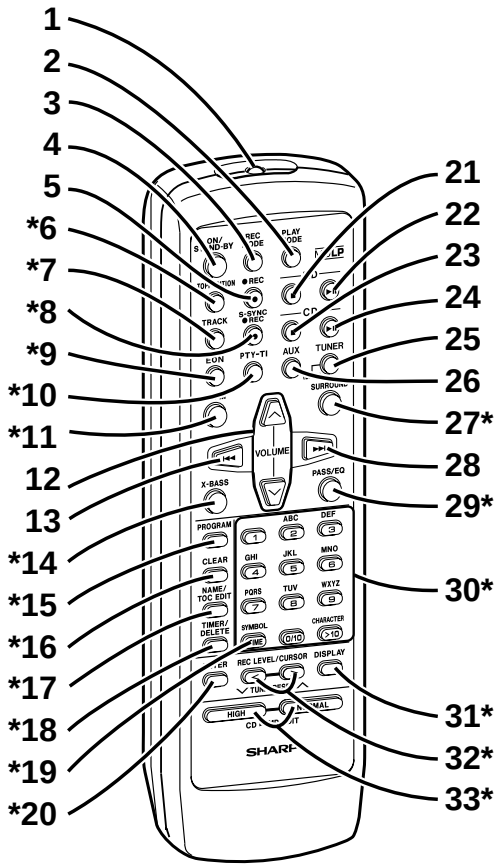
1. System Input Sockets
2. System Control Socket
3. Speaker Terminals
4. Cooling Fan
5. AC Input Socket



■ Remote control

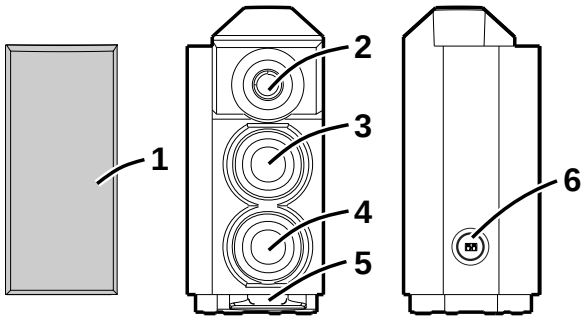
1. Remote Control Transmitter
2. CD/MD Play Mode Select Button
3. MD Record Mode Button
4. On/Stand-by Button
5. MD Record Button
6. Top Position Button
7. Track Edit Button
8. Sound Synchronise Record Button
9. RDS EON Button
10. RDS Programme Type/Traffic Information Search Button
11. RDS ASPM (Auto Station Programme Memory) Button
12. Volume Up or Down Button
13. CD/MD Fast Reverse, Tuning Down Button
14. Extra Bass Button
15. CD/MD Programme Button
16. Clear Button
17. Name/TOC-Edit Button
18. Timer/Delete Button
19. Time Button
20. Enter Button
21. MD Stop Button
22. MD Play/Pause Button
23. CD Stop Button
24. CD Play/Pause Button
25. Tuner (Band) Button
26. Auxiliary Input Button
27. Surround Button
28. CD/MD Fast Forward, Tuning Up Button
29. Preset Equalizer Button
30. Character Input/CD, MD, Tuner Direct Buttons
31. Display Button
32. Recording Level/Cursor/Tuner Preset Button
33. CD/MD Edit Button

Buttons with "★" mark in the illustration can be operated on the remote control only.
Other buttons can be operated both the main unit and the remote control.



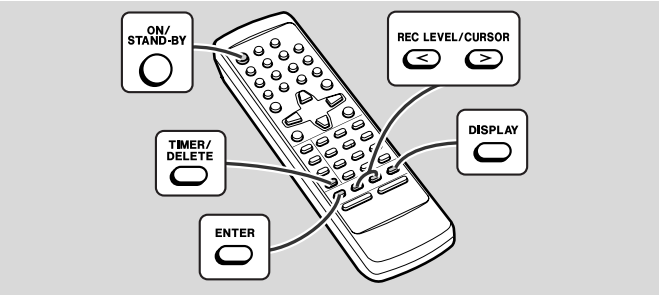
CP-NX10H

1. Speaker Grille
2. Tweeter
3. Woofer
4. Woofer
5. Bass Reflex Duct
6. Speaker Terminals



OPERATION MANUAL

Setting the Clock



In this example, the clock is set for 9:30 15. 02 '01 .

1 **Press the ON/STAND-BY button to turn the power on.**

2 **Press the TIMER/DELETE button.**

3 **Within 10 seconds, press the REC LEVEL/CURSOR < or > button to select the "TIME ADJUST".**

TIME ADJUST

4 **Within 10 seconds, press the ENTER button.**

5 **Press the REC LEVEL/CURSOR < or > button to adjust the year, and then press the ENTER button.**

01.01'01

6 **Press the REC LEVEL/CURSOR < or > button to adjust the month, and then press the ENTER button.**

01.02'01

7 **Press the REC LEVEL/CURSOR < or > button to adjust the date, and then press the ENTER button.**

15.02'01

8 **Press the REC LEVEL/CURSOR < or > button to adjust the hour, and then press the ENTER button.**

9:00

9 **Press the REC LEVEL/CURSOR < or > button to adjust the minutes, and then press the ENTER button.**

9:30

The hour will not advance even if minutes advance from "59" to "00".

The clock starts from "0" second. (Seconds are not displayed.) The time display will disappear after a few seconds.

To confirm the time display:
[When the unit is in the stand-by mode]
Press the DISPLAY button on the remote control.
The time display will appear for about 5 seconds.
[When the power is on]
Press the TIMER/DELETE button.
Within 10 seconds, press the REC LEVEL/CURSOR < or > button.
The time display will appear for about 10 seconds.

Note:
The clock setting will be cleared when the unit is unplugged or the power failure occurs.

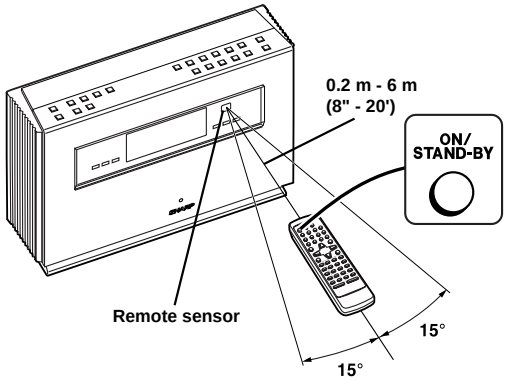
To reset the clock:
Perform "Setting the Clock" from the beginning.

Remote Control

■ Test of the remote control

Check the remote control after checking all connections have been made correctly. Face the remote control directly to the remote sensor on the unit.

The remote control can be used within the range shown below:
Press the ON/STAND-BY button. Does the power turn on? Now, you can enjoy the music.



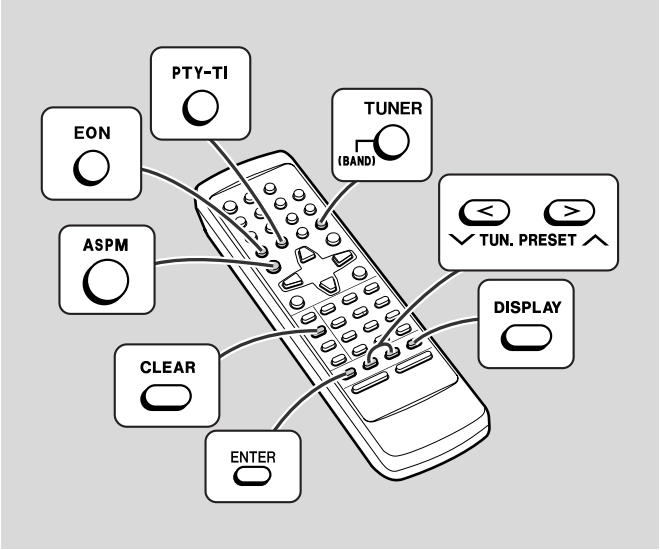
Notes concerning use:

Replace the batteries if the operating distance is reduced or if the operation becomes erratic. Purchase 2 "AA" size batteries (UM/SUM-3, R6, HP-7 or similar).
Periodically clean the transmitter on the remote control and the sensor on the stereo system with a soft cloth.
Exposing the sensor on the stereo system to strong light may interfere with operation. Change the lighting or the direction of the stereo system.
Keep the remote control away from moisture, heat, shock, and vibrations.

Using the Radio Data System (RDS)

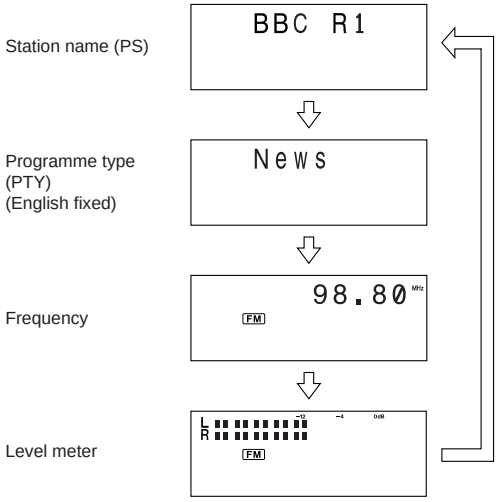
RDS is a broadcasting service which a growing number of FM stations provide. These FM stations send additional signals along with their regular programme signals. They send their station names, and information about the type of programme such as sports or music, etc.
When tuned to an RDS station, "RDS" and the station name will be displayed.
"TP" (Traffic Programme) will appear on the display when the received broadcast carries traffic information, and "TA" (Traffic Announcement) will appear whilst a traffic information is on air.
"EON" will appear whilst the EON (Enhanced Other Networks information) data is broadcast.
"PTYI" (Dynamic PTY Indicator) will appear whilst the Dynamic PTY station is received.

You can control the RDS by using the remote control only.

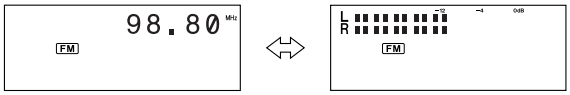


■ Information provided by RDS

Each time the DISPLAY button is pressed, the display will switch as follows:



When you are tuning in to a station other than an RDS station or to an RDS station which sends weak signal, the display will change in the following order:



Frequency Level meter

Descriptions of the PTY (Programme Type) codes, TP (Traffic Programme) and TA (Traffic Announcement).
You can search for and receive the following PTY, TP and TA signals.

News	Short accounts of facts, events and publicly expressed views, reportage and actuality.
Affairs	Topical programme expanding or enlarging upon the news, generally in different presentation style or concept, including debate, or analysis.
Info	Programmes whose purpose is to impart advice in the widest sense.
Sport	Programme concerned with any aspect of sport.
Educate	Programme intended primarily to educate, of which the formal element is fundamental.
Drama	All radio plays and serials.
Culture	Programmes concerned with any aspect of national or regional culture, including language, theatre, etc.
Science	Programmes about the natural sciences and technology.
Varied	Used for mainly speech-based programmes usually of light-entertainment nature, not covered by other categories. Examples include: quizzes, panel games, personality interviews.
Pop M	Commercial music, which would generally be considered to be of current popular appeal, often featuring in current or recent record sales charts.
Rock M	Contemporary modern music, usually written and performed by young musicians.
Easy M	Current contemporary music considered to be "easy-listening", as opposed to Pop, Rock or Classical, or one of the specialised music styles, Jazz, Folk or Country. Music in this category is often but not always, vocal, and usually of short duration.
Light M	Classical music for general, rather than specialist appreciation. Examples of music in this category are instrumental music, and vocal or choral works.
Classics	Performances of major orchestral works, symphonies, chamber music, etc., and including Grand Opera.
Other M	Musical styles not fitting into any of the other categories. Particularly used for specialist music of which Rhythm & Blues and Reggae are examples.
Weather	Weather reports and forecasts and meteorological information.
Finance	Stock Market reports, commerce, trading, etc.
Children	For programmes targeted at a young audience, primarily for entertainment and interest, rather than where the objective is to educate.
Social	Programmes about people and things that influence them individually or in groups. Includes: sociology, history, geography, psychology and society.
Religion	Any aspect of beliefs and faiths, involving a God or Gods, the nature of existence and ethics.
Phone in	Involving members of the public expressing their views either by phone or at a public forum.
Travel	Features and programmes concerned with travel to near and far destinations, package tours and travel ideas and opportunities. Not for use for announcements about problems, delays, or roadworks affecting immediate travel where TP/TA should be used.
Leisure	Programmes concerned with recreational activities in which the listener might participate. Examples include, Gardening, Fishing, Antique collecting, Cooking, Food & Wine, etc.
Jazz	Polyphonic, syncopated music characterised by improvisation.
Country	Songs which originate from, or continue the musical tradition of the American Southern States. Characterised by a straightforward melody and narrative story line.
Nation M	Current Popular Music of the Nation or Region in that country's language, as opposed to International 'Pop' which is usually US or UK inspired and in English.
Oldies	Music from the so-called "golden age" of popular music.
Folk M	Music which has its roots in the musical culture of a particular nation, usually played on acoustic instruments. The narrative or story may be based on historical events or people.
Document	Programme concerned with factual matters, presented in an investigative style.
TEST	Broadcast when testing emergency broadcast equipment or receivers.
Alarm !	Emergency announcement made under exceptional circumstances to give warning of events causing danger of a general nature.
None	No programme type (receive only).
TP	Broadcasts which carry traffic announcements.
TA	Traffic announcements are being broadcast.

Note:
When you select a programme in the EON stand-by mode, the unit will display "TI" instead of "TA".

Troubleshooting Chart

Many potential "problems" can be resolved by the owner without calling a service technician.

General

Symptom	Possible cause
● "TIME ADJUST" appears when the clock time is checked.	● Did a power failure occur? Reset the clock.
● When a button is pressed, the unit does not respond.	● Set this unit to the power stand-by mode and then turn it back on.
● No sound is heard.	● Is the volume level set to "0"? ● Are the headphones connected? ● Are the speaker wires disconnected?
● The picture on the TV screen is distorted.	● When a radio or TV which uses an indoor aerial is placed near the unit, the picture on the TV screen may be distorted or the radio may not function properly. ● It is recommended that you use an external aerial.
● Cannot adjust the volume.	● Is the sound connection lead connected to the LINE OUT sockets on the MD/CD/tuner unit? Set the unit to the stand-by mode and connect the lead to the SYSTEM OUT sockets.

CD player

Symptom	Possible cause
● Even though a disc has been loaded, "CD NO DISC" or "Can't READ" is displayed.	● The disc is very dirty. ● Is the unit located near excessive vibrations? ● Has condensation formed inside the unit?
● Playback does not start.	● The disc is loaded upside down.
● Playback stops in the middle or is not performed properly.	● The disc does not satisfy the standards. ● The disc is distorted or scratched.
● Playback sounds are skipped, or stopped in the middle of a track.	● Is the unit located near excessive vibrations? ● The disc is very dirty. ● Has condensation formed inside the unit?

MiniDisc

Symptom	Possible cause
● A recording cannot be made.	● Is the MiniDisc protected against accidental erasure? ● Did you try to make recording on a playback-only MiniDisc? ● Can you see the "DISC FULL" or "TOC FULL" message in the display?
● Even though a disc has been loaded, "MD NO DISC" or "Can't READ" is displayed.	● The disc is very dirty. Is the unit located near excessive vibrations?
● Playback sounds are skipped.	● Has condensation formed inside the unit?

Tuner

Symptom	Possible cause
● Radio makes unusual noise consecutively.	● The stereo system is placed near the TV or computer. ● FM/AM loop aerial is not placed properly. ● Move the AC power lead away from the aerial if located near.
● The preset channel cannot be recalled.	● Did a power failure occur? ● Preset the channel again.

Remote control

Symptom	Possible cause
● The remote control does not operate.	● Is the AC power lead of the stereo system plugged in? ● The battery polarity is not correct. ● The batteries are dead. ● Incorrect distance or angle. ● Does the remote control sensor receive strong light?

If trouble occurs (reset)

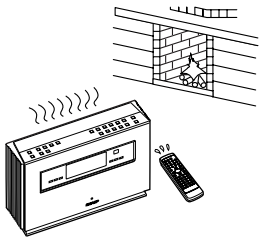
When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

If such a problem occurs, do the following:
Unplug the power lead from the AC socket. Then, plug it in again and retry the operation.

Caution:
This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD or MiniDisc programme.

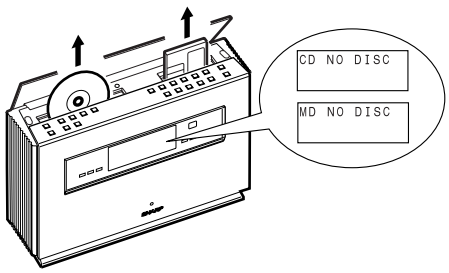
Condensation

Sudden temperature changes, storage or operation in an extremely humid environment may cause condensation inside the cabinet (CD pickup, MD pickup, etc.) or on the transmitter on the remote control. Condensation can cause the unit to malfunction. If this happens, leave the power on with no disc in the unit until normal playback is possible (about 1 hour). Wipe off any condensation on the transmitter with a soft cloth before operating the unit.



Before transporting the unit

Remove the CD and MiniDisc from the unit. Your unit checks whether there are any discs inside. "CD NO DISC" and "MD NO DISC" appear if no disc is inside. Then, set the unit to the power stand-by mode. Carrying the unit with discs left inside can damage it.



Error Messages

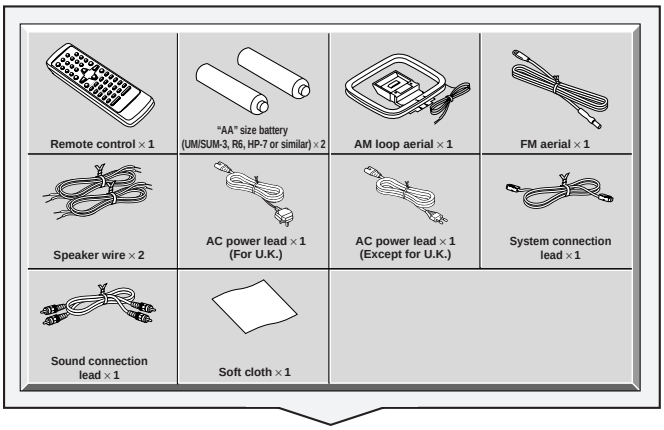
When an error message is displayed, proceed as follows:

Error messages	Meaning	Remedy
BLANK MD	● Nothing is recorded. (Neither music nor disc name is recorded.)	● Replace it with another disc.
Can't COPY	● You tried to record from a copy prohibited CD.	● Replace the CD.
Can't EDIT	● A track cannot be edited.	● Change the stop position of the track and then try editing it.
Can't READ* **(*: Number or symbol)**	● The disc is damaged. ● TOC information cannot be read. ● MiniDisc not specified.	● Replace it with another disc. ● Erase the disc and try recording again.
Can't REC	● Recording cannot be performed correctly due to vibration or shock in the unit.	● Re-record or replace the MiniDisc.
Can't T REC	● Timer recording is impossible or there is no available space on the MD. ● The disc is out of recording space.	● Replace it with another recordable disc.
Can't WRITE	● The TOC information could not be created properly due to a mechanical shock or to scratches on the disc.	● Set this unit to the stand-by mode and try to write the TOC again. (Remove any source of shock or vibration whilst writing.)
CD NO DISC	● A CD has not been loaded. ● The CD data cannot be read.	● Load a CD. ● Reload the CD.
DISC FULL	● The disc is out of recording space.	● Replace the disc with another recordable disc.
EDIT OVER	● You chose 21 or more tracks for track editing.	● Decrease the number of tracks.
Er - MD ** ** **(: Number or symbol)**	● A MiniDisc is not working properly.	● Press the MD ⏏ button. ● Set this unit to the stand-by mode and turn the power on again.

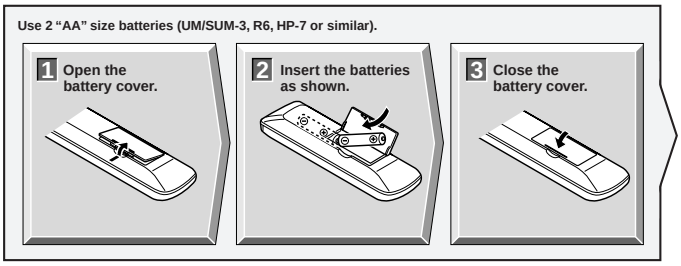
Error messages	Meaning	Remedy
MD NO DISC	● A MiniDisc has not been loaded. ● The MiniDisc data cannot be read.	● Load a MiniDisc. ● Reload the MiniDisc.
NAME FULL	● The number of characters for the disc name or track name exceeds 40.	● Shorten the disc or track name.
NOT AUDIO	● The data recorded on this disc is not audio data.	● Replace the disc.
PLAYBACK MD	● You tried to record on a playback-only disc.	● Replace it with another recordable disc.
POWER ?	● A MiniDisc is not working properly.	● Set this unit to the stand-by mode and turn the power on again.
PROTECTED	● The disc is write protected.	● Move the write protection tab back to its original position.
TEMP OVER	● The temperature is too high.	● Set this unit to the stand-by mode and wait for a whilst.
TOC FORM ** ** **(: Number or symbol)**	● TOC information recorded on the MD does not match the MiniDisc specifications or it cannot be read.	● Replace it with another disc. ● Erase the disc and try recording again.
TOC FULL	● There is no space left for recording track numbers.	● Replace it with another recordable disc.
TOC FULL 1	● There is no space left for recording character information.	● Replace it with another recordable disc. ● Erase the needless characters.
? MD DISC	● The data contains an error. ● MiniDisc not specified.	● Press the MD ⏏ button. ● Replace it with another disc.

SD-NX10H

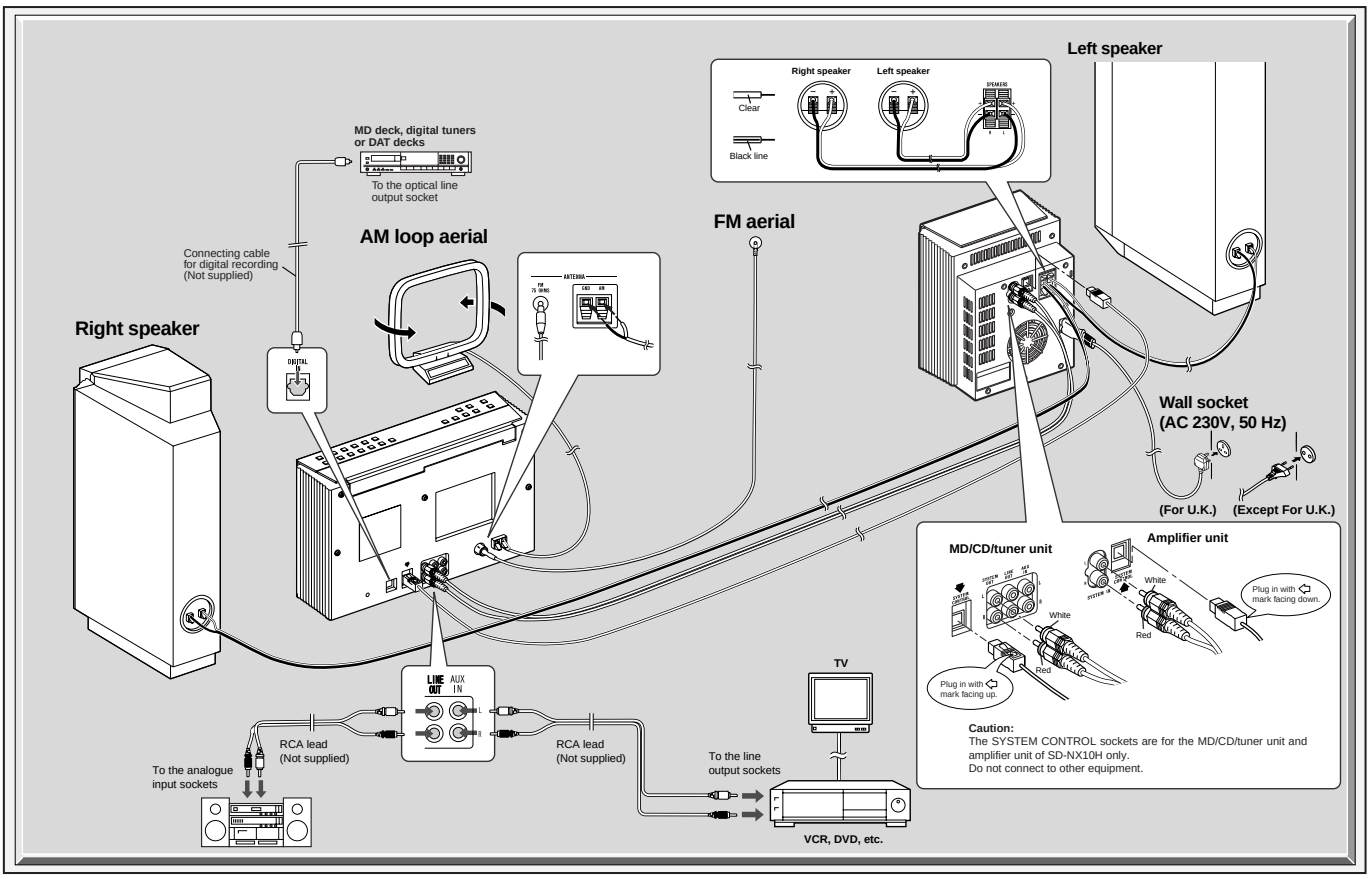
1 Accessories


Remote control × 1
"AA" size battery (UM/SUM-3, R6, HP-7 or similar) × 2
AM loop aerial × 1
FM aerial × 1
Speaker wire × 2
AC power lead × 1 (For U.K.)
AC power lead × 1 (Except for U.K.)
System connection lead × 1
Sound connection lead × 1
Soft cloth × 1

2 Battery installation of remote control


Use 2 "AA" size batteries (UM/SUM-3, R6, HP-7 or similar).
1 Open the battery cover.
2 Insert the batteries as shown.
3 Close the battery cover.

3 System Connections

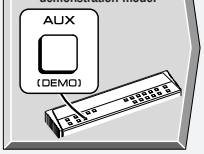


4 Turn on your System

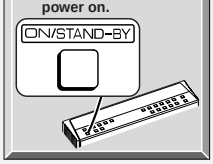
The first time the unit is plugged in, the unit will enter the demonstration mode. You will see words scroll.

DEMO ON

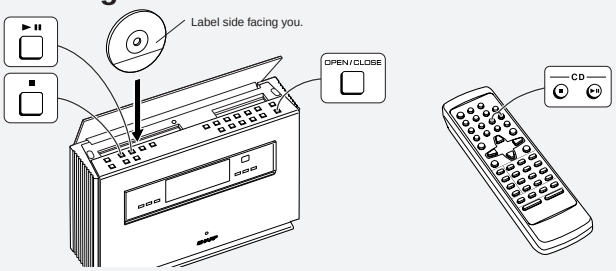
1 Press the AUX (DEMO) button to cancel the demonstration mode.



2 Press the ON/STAND-BY button to turn the power on.

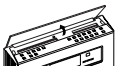


Listening to a CD

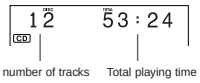


1 ■ **Press the CD ■ button.**

2 OPEN/CLOSE **Press the OPEN/CLOSE button to open the CD/MD cover.**



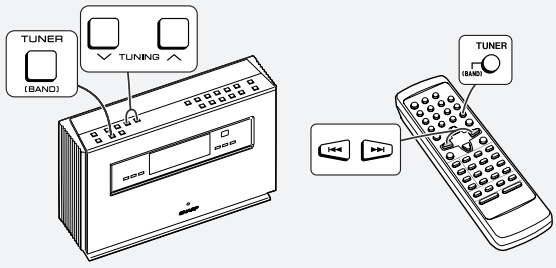
3 **Load a CD into the CD compartment, label side facing you.**



Total number of tracks Total playing time

4 ►II **Press the CD ►II button to start playback.**

Listening to the Radio



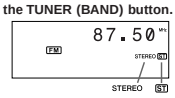
1 TUNER (BAND) **Press the TUNER (BAND) button repeatedly to select the desired frequency band (FM STEREO, FM or AM).**

2 TUNING **Press the TUNING (∨ or ∧) button to tune in to the desired station.**

- When the TUNING (∨ or ∧) button is pressed for more than 0.5 seconds, scanning will start automatically and the tuner will stop at the first receivable broadcast station.

3 TUNER (BAND) **To receive an FM stereo transmission, press the TUNER (BAND) button. The "STEREO" indicator lights up.**

- "ST" will appear when an FM broadcast is in stereo.



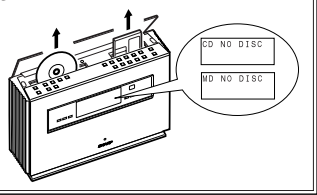
■ If trouble occurs (reset)

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

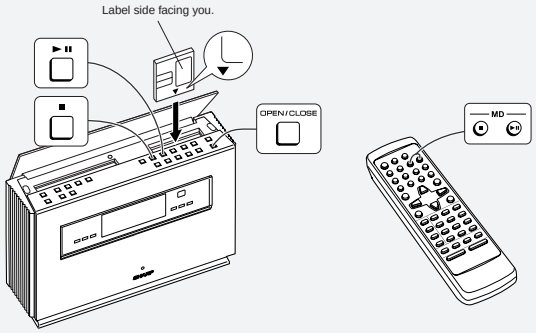
If such a problem occurs, do the following:
Unplug the power lead from the AC socket. Then, plug it in again and retry the operation.

■ Before transporting the unit

Remove the CD and MD from the unit. Your unit checks whether there are any discs inside. "CD NO DISC" and "MD NO DISC" appear if no disc is inside. Then, set the unit to the power stand-by mode. Carrying the unit with discs left inside can damage it.

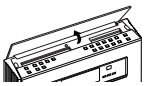


Listening to a MiniDisc

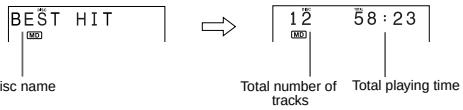


1 ■ **Press the MD ■ button.**

2 OPEN/CLOSE **Press the OPEN/CLOSE button to open the CD/MD cover.**



3 **Load a MiniDisc into the MD compartment, label side facing you.**



Disc name Total number of tracks Total playing time

4 ►II **Press the MD ►II button to start playback.**

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take compact disc and minidisc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
   If the screw of the wrong length is applied on the MD mechanism unit (screw for mounting parts to the MD mechanism chassis), it may contact the optical pickup and cause the unit to malfunction.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

SD-NX10H (MD/CD/TUNER UNIT)

STEP	REMOVAL	PROCEDURE	FIGURE
1	Leg Cabinet	1. Screw ..... (A1) x5	14-1
2	Rear Panel	1. Screw ..... (B1) x9 2. Screw ..... (B2) x1	14-1
3	MD/CD Lid Cabinet/ Loading Gear Ass'y * (Note 1)	1. Open it in the direction of the arrow. 2. Lid Cushion Cover ... (C1) x2 3. Screw Cover Sheet .. (C2) x1 4. Screw ..... (C3) x5 5. Rear Support Bracket ..... (C4) x1 6. Socket ..... (C5) x3	14-2
4	Front Cabinet	1. Screw ..... (D1) x5 2. Socket ..... (D2) x2 3. Tip ..... (D3) x1	14-2 14-3
5	Main PWB	1. Screw ..... (E1) x6 2. Socket ..... (E2) x7 3. Flat Cable ..... (E3) x3	14-3
6	MD/CD Block	1. Screw ..... (F1) x5 2. Socket ..... (F2) x2	15-1 15-2
7	Tuner Unit	1. Screw ..... (G1) x3	15-2
8	Jack PWB	1. Screw ..... (H1) x6	15-2
9	MD Sensor PWB	1. Screw ..... (J1) x1	15-3
10	OPEN/CLOSE Switch PWB	1. Screw ..... (K1) x1	15-3
11	LED A/B PWB	1. Hook ..... (L1) x2 2. Screw ..... (L2) x4	15-4
12	Front Decoration Panel	1. Screw ..... (M1) x8 2. Earth Plate ..... (M2) x1	15-4
13	Top Cabinet	1. Screw ..... (N1) x3	15-5
14	MD/CD Switch PWB	1. Screw ..... (P1) x10	15-5
15	Socket PWB	1. Screw ..... (Q1) x2	15-6
16	CD Mechanism Ass'y	1. Screw ..... (R1) x4	15-6
17	MD Mechanism Unit	1. Screw ..... (S1) x4	15-6
18	MD Mechanism/ MD Main PWB * (Note 2)	1. Screw ..... (T1) x8 2. Flat Cable ..... (T2) x3 3. Flexible PWB ..... (T3) x1 4. Socket ..... (T4) x2	16-1

*** (Note 1)**

Screws are covered. Remove the cushion covers first with a sharp-ended stick and then screws.

Be careful not to damage them when removing. They will be reused.

*** (Note 2)**

After pulling out the optical pickup connector, wrap the tip of it with conductive aluminium foil or the like to protect the optical pickup from the static electricity.

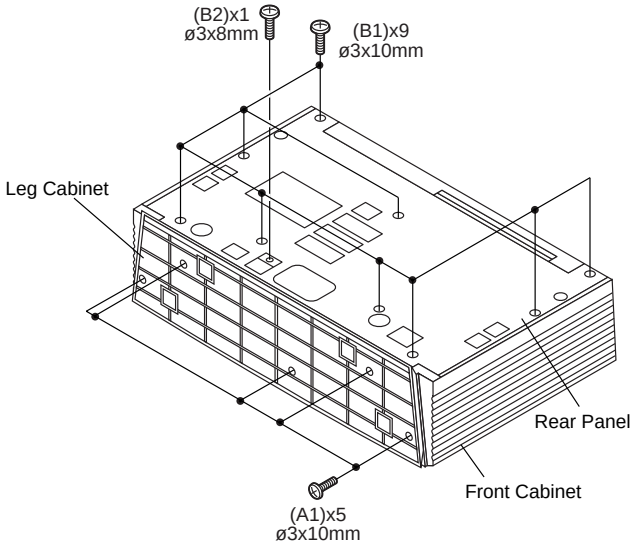


Figure 14-1

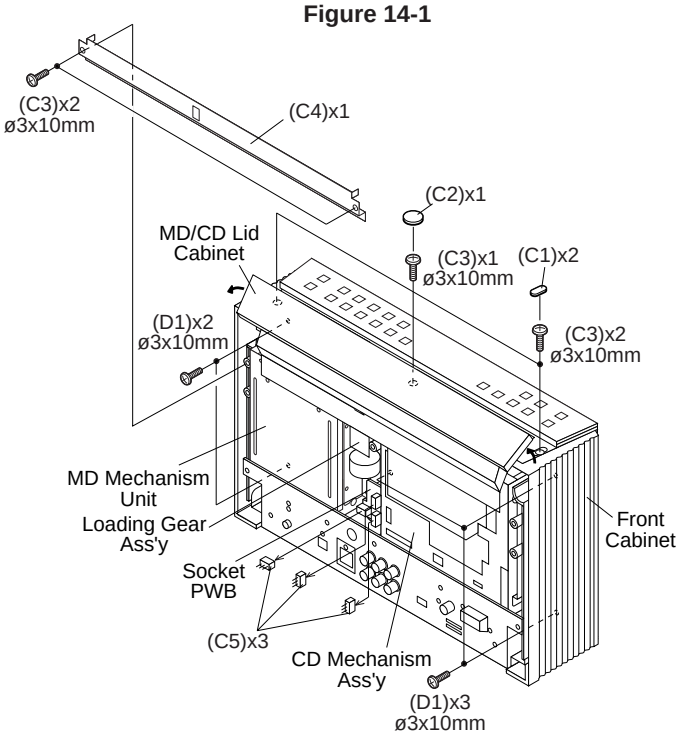


Figure 14-2

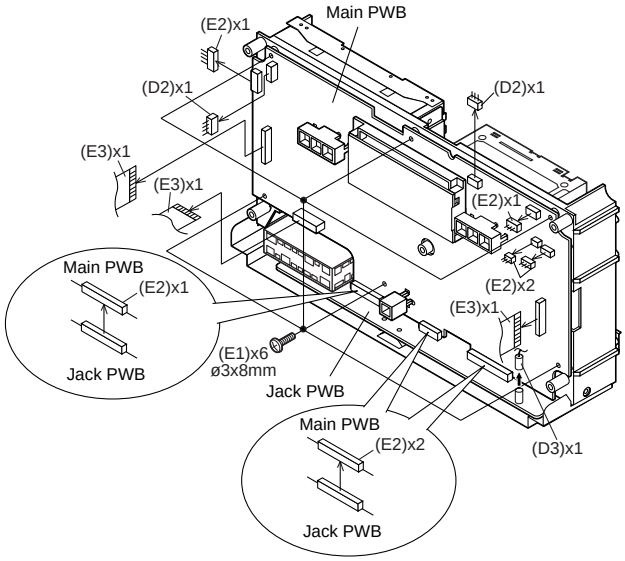


Figure 14-3

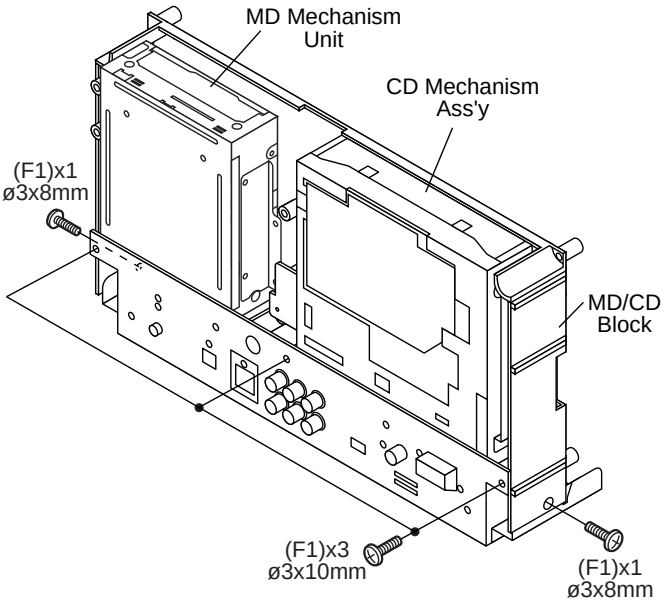


Figure 15-1

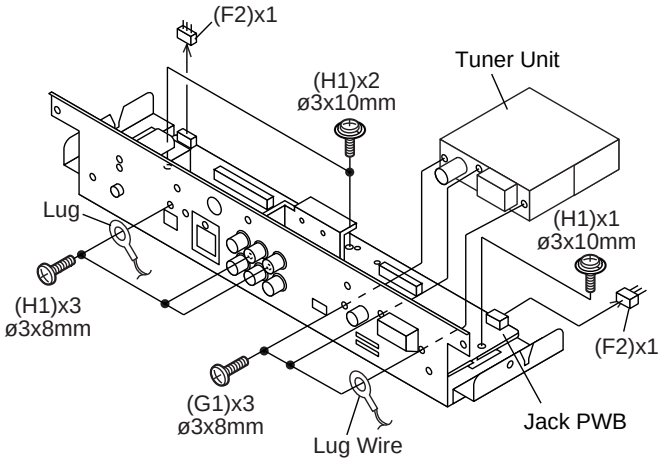


Figure 15-2

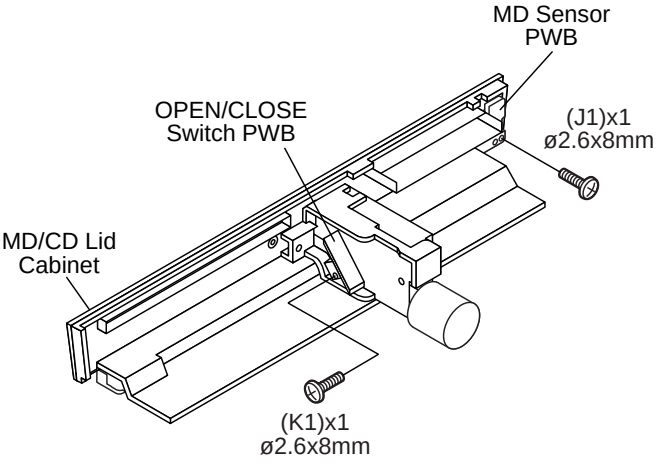


Figure 15-3

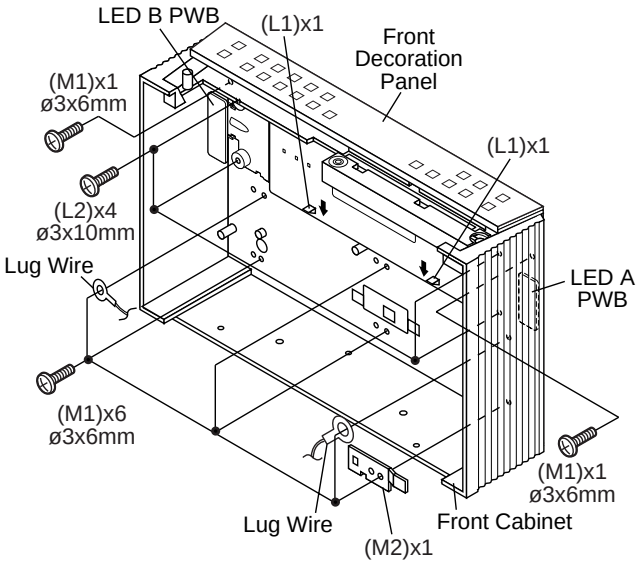


Figure 15-4

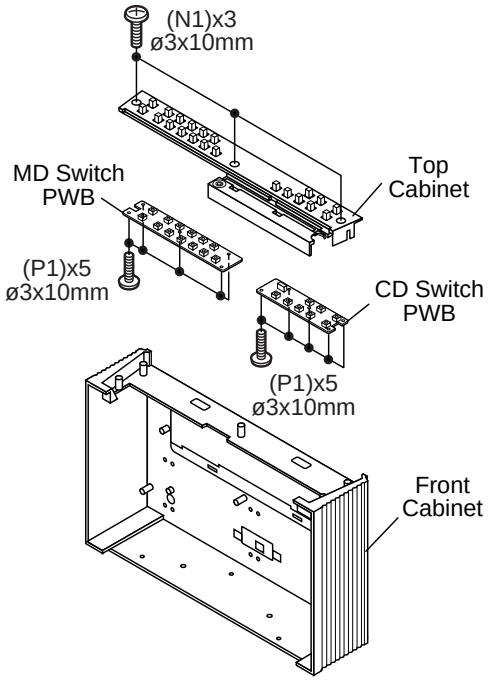


Figure 15-5

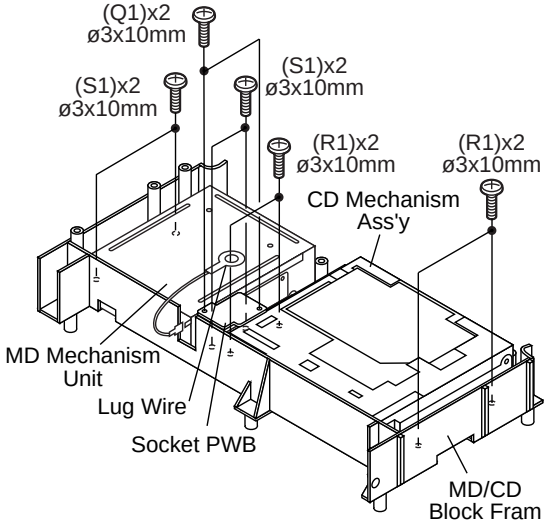
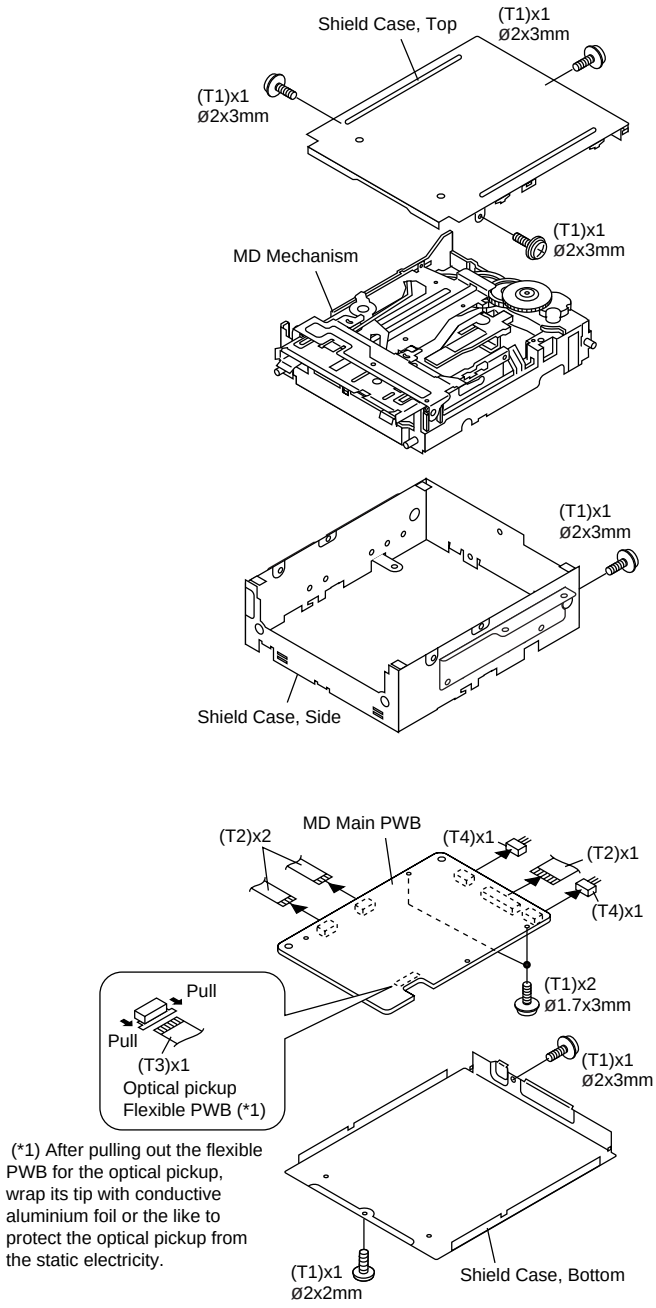


Figure 15-6



(*1) After pulling out the flexible PWB for the optical pickup, wrap its tip with conductive aluminium foil or the like to protect the optical pickup from the static electricity.

Figure 16-1

Special driver

(Amplifier unit: aluminium decorative plate)
To prohibit users' disassembling the unit, special screws are used to fix the decorative plate. A special driver is required.

(Torque head: T8 type)

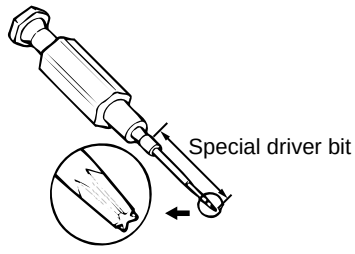


Figure 16-2

SD-NX10H (AMPLIFIER UNIT)

STEP	REMOVAL	PROCEDURE	FIGURE
1	Leg Cabinet	1. Screw ..... (A1) x5	16-3
2	Rear Cabinet	1. Screw ..... (B1) x11	16-3
3	Front Cabinet	1. Screw ..... (C1) x6	16-4
4	Rear Panel	1. Screw ..... (D1) x6 2. Socket ..... (D2) x1	17-1
5	1-Bit Amp Unit	1. Screw ..... (E1) x2 2. Socket ..... (E2) x4	17-1
6	Terminal PWB	1. Screw ..... (F1) x2 2. Socket ..... (F2) x2	17-2
7	Power/Amp LED PWB	1. Screw ..... (G1) x2 2. Socket ..... (G2) x2	17-2
8	Shield Cover	1. Screw ..... (H1) x12 2. Heat Sink..... (H2) x1 3. 1-Bit Amp Bracket . (H3) x1	17-3
9	1-Bit Amp PWB	1. Screw ..... (J1) x4	17-4

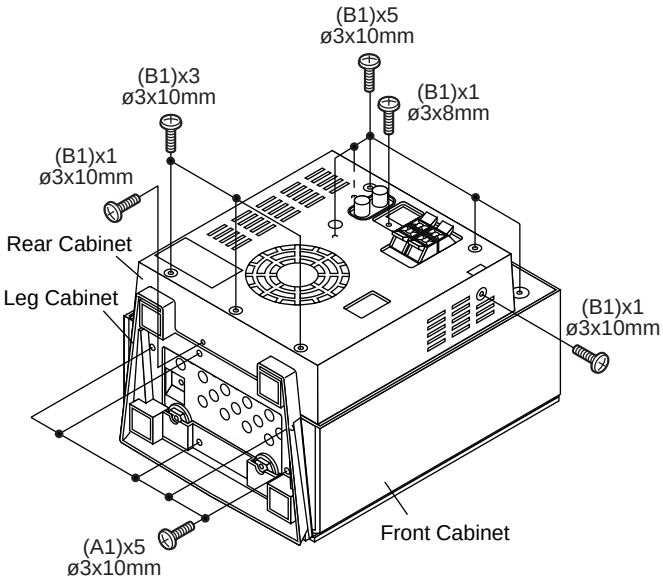


Figure 16-3

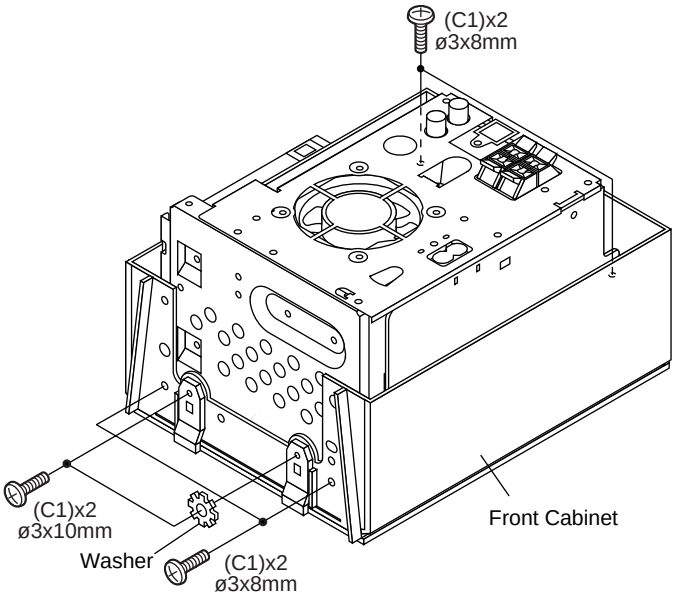


Figure 16-4

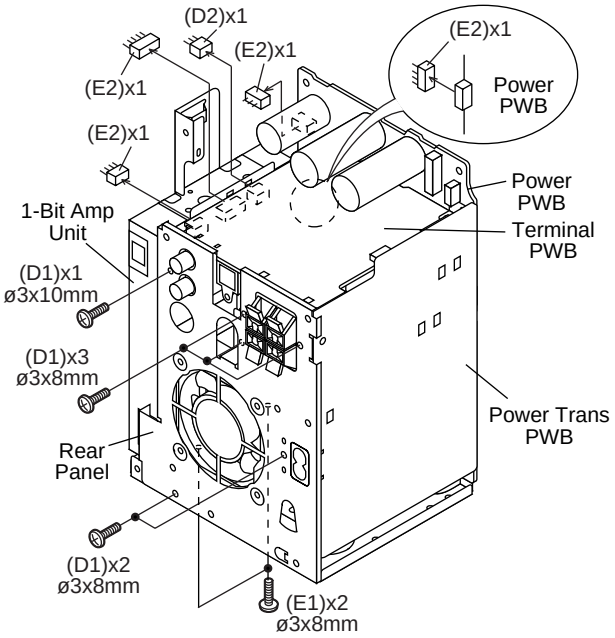


Figure 17-1

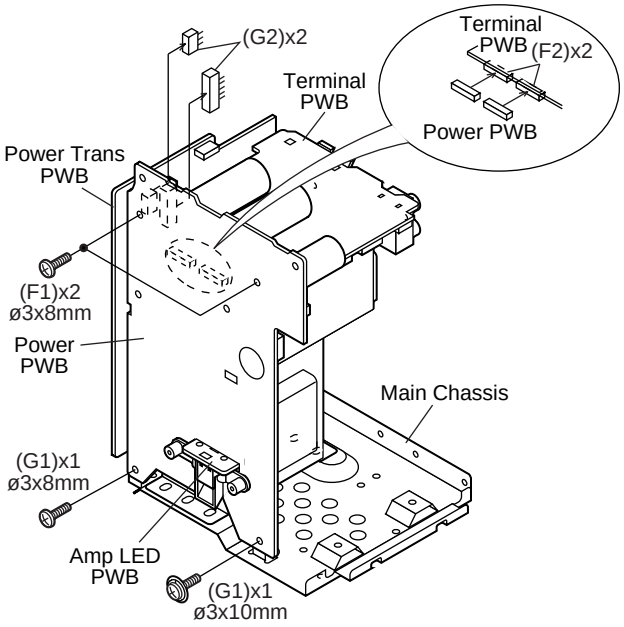


Figure 17-2

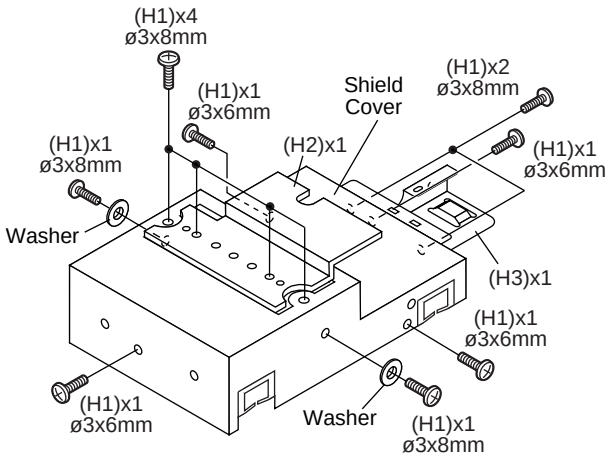


Figure 17-3

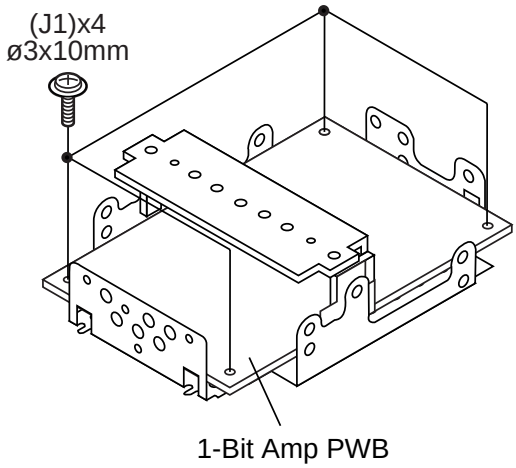


Figure 17-4

CP-NX10H

STEP	REMOVAL	PROCEDURE	FIGURE
1	Woofer	1. Leg Cushion ..... (A1) x4 2. Screw ..... (A2) x4 3. Top Cover ..... (A3) x1 4. Front Panel ..... (A4) x1 5. Screw ..... (A5) x8	17-5 17-6
2	Tweeter	1. Screw ..... (B1) x4	17-6

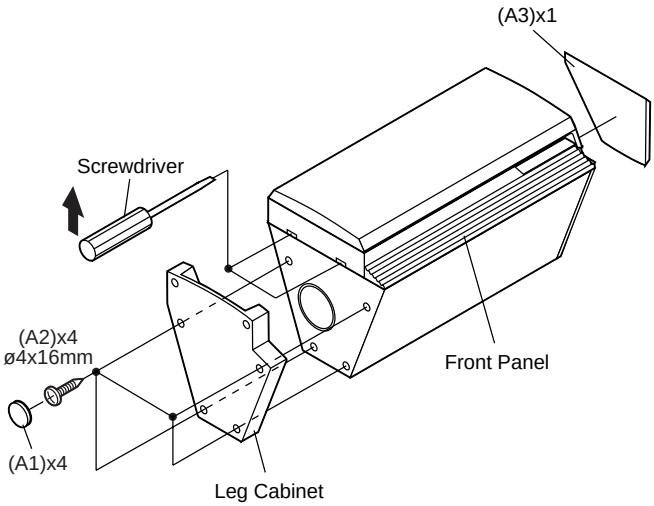


Figure 17-5

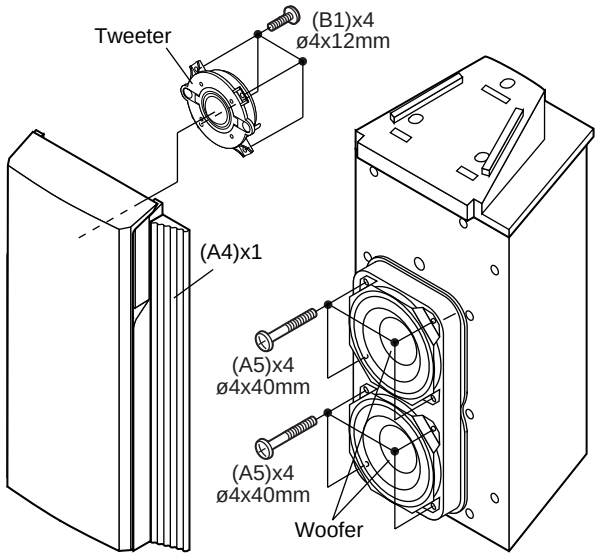


Figure 17-6

REMOVING AND REINSTALLING THE MAIN PARTS

MD MECHANISM SECTION

Perform steps 1 to 4, 6, 15, 17 and 18 of the disassembly method to remove the MD mechanism. (See page 14 to 16.)

Caution:
After pulling out the optical pickup connector, wrap the end of the connector in conductive aluminium foil to prevent the optical pickup from being destroyed by static electricity.

How to remove the magnetic head (See Fig. 18-1)

1. Remove the screw (A1) x 1 pc.

Caution:
Take utmost care so that the magnetic head is not damaged when it is mounted.

How to remove the MD loading motor PWB/MD loading motor (See Fig. 18-2)

1. Remove the screw (B1) x 1 pc.
2. Remove the Hook (B2) x 3 pcs., and remove the MD loading PWB.
3. Remove the screws (B3) x 2 pcs., and remove the MD loading motor.

How to remove the MD sled motor/optical pickup (See Fig. 18-3)

1. Remove the screws (C1) x 3 pcs., and remove the MD sled motor.
2. Remove the optical pickup.

Caution:
Be careful so that the gear is not damaged.
(The damaged gear emits noise during searching.)

How to remove the MD spindle motor (See Fig. 18-4)

1. Remove the screws (D1) x 3 pcs., and remove the MD spindle motor.

Caution:
Be careful so that the gear is not damaged.
(The damaged gear emits noise during searching.)

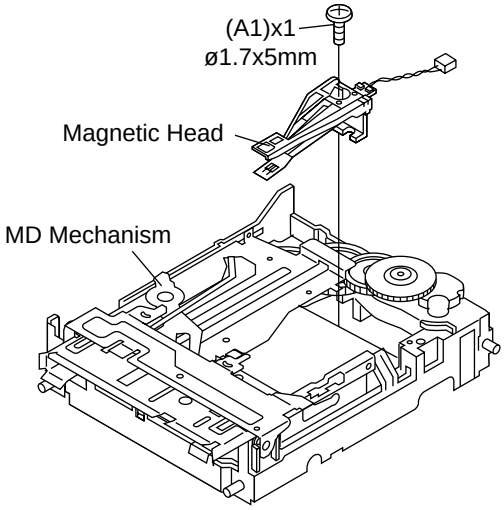


Figure 18-1

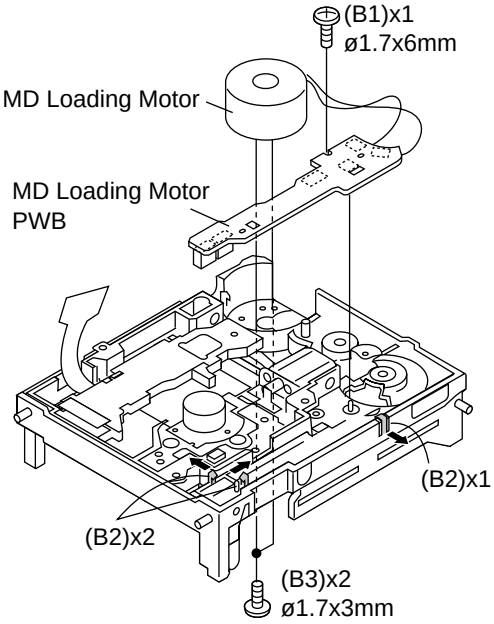


Figure 18-2

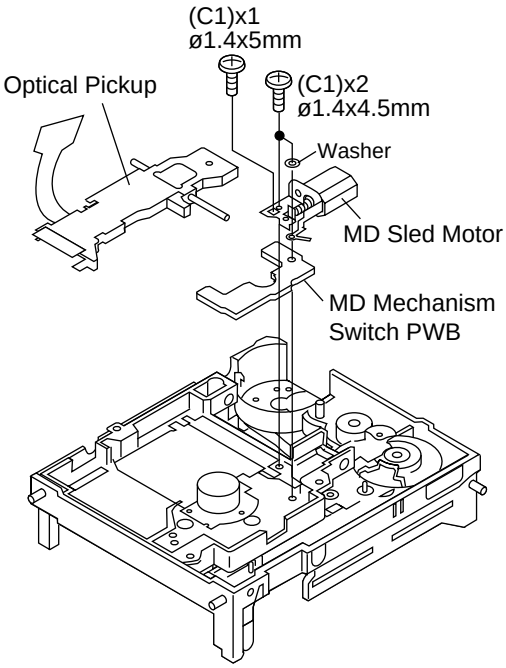


Figure 18-3

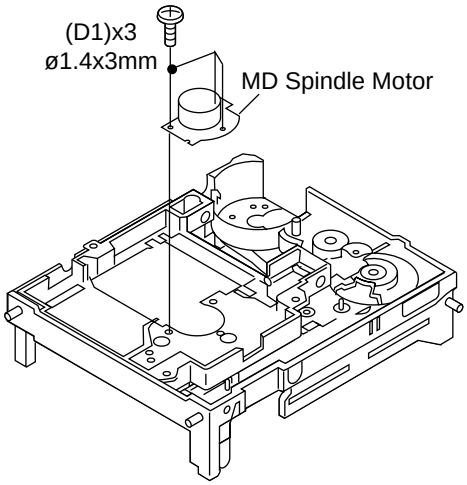


Figure 18-4

CD MECHANISM SECTION

Perform steps 1 to 4, 6, 15 and 16 of the disassembly method to remove the CD mechanism. (See page 14 to 16.)

Unless the unit enters the loading completed state, the CD mechanism section can not be disassembled. It can be disassembled if an 8-cm disc is loaded. However, since 8-cm CDs are not available in overseas, the loading completed state have to be entered by the method written in the attached material.
(Since a 12-cm CD is too big, it is an obstacle to disassembly of the CD mechanism section.)

How to enter the loading completed state without loading a disc (See Fig. 19-1 to 19-3)

1. Unsolder the lead wire from the loading motor and apply a voltage of approx. 5 (red: plus).
2. While applying a voltage, push the white lever A in the direction indicated by the arrow as shown in Fig. 19-2.
   → The loading operation starts.
3. If the loading operation is completed and clicks are heard, stop applying a voltage.
4. When loading a disc actually, the B section is pushed by the disc, the lever C is turned, and the D section pushes the lever A.
   (Therefore, the loading operation also starts if the B section is pushed in the right direction as shown in Fig. 19-2 instead of pushing the lever A instructed in the step 2 above.)
5. If the operations above are not performed, the mechanism section (seen on the near side) connecting to the roller section can not be pulled out to this side since the metal lever obstructs.

   Fig. 19-1 shows the loading completed state. The metal lever is moved to a nonobstructive position, and the unit enters a state where the mechanism can be pulled out.

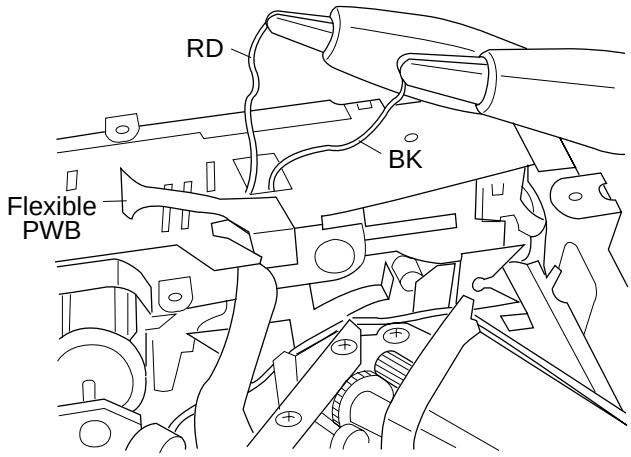


Figure 19-1

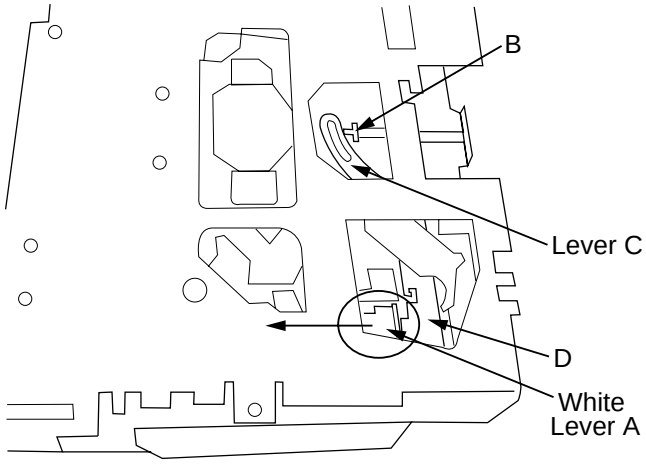


Figure 19-2

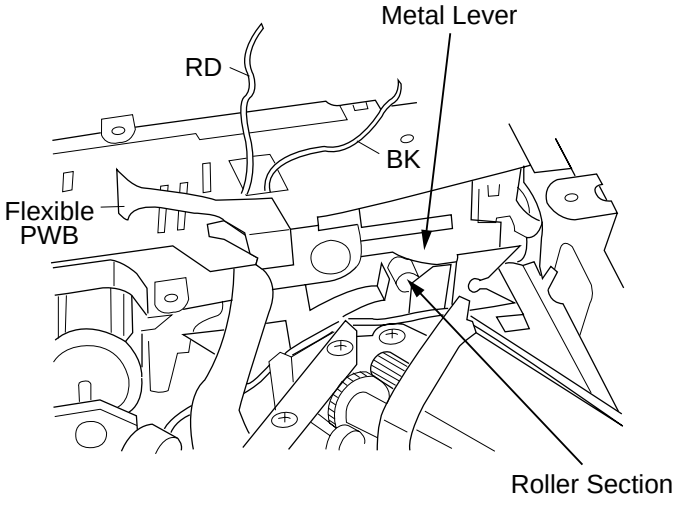


Figure 19-3

SD-NX10H

How to remove the CD servo PWB/optical pickup (See Fig. 20-1 to 20-3)

1. Remove the screws (A1) x 2 pcs.
2. Remove the flat cables (A2) x 2.
3. Remove the solder joints (A3) x 8.
4. Remove the CD servo PWB.
5. Remove the screws (A4) x 7 pcs, and then the CD bracket and CD mechanism bracket.
6. Remove the screws (A5) x 5 pcs, leaf spring, lead screw, lead screw holder, and pickup guide.
7. Remove the optical pickup.

Note:
After pulling out the optical pickup connector, wrap the tip of it with conductive aluminium foil or the like to protect the optical pickup from the static electricity.

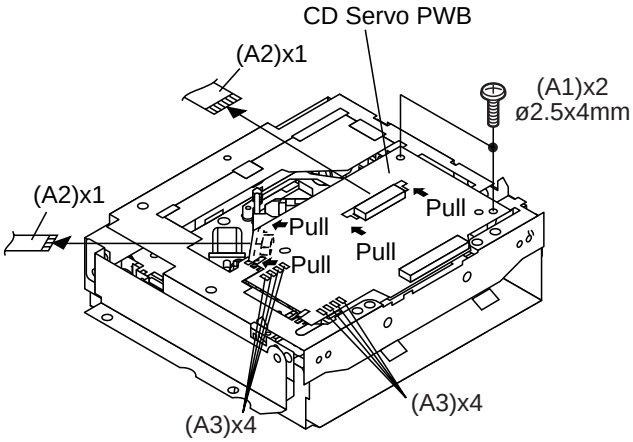


Figure 20-1

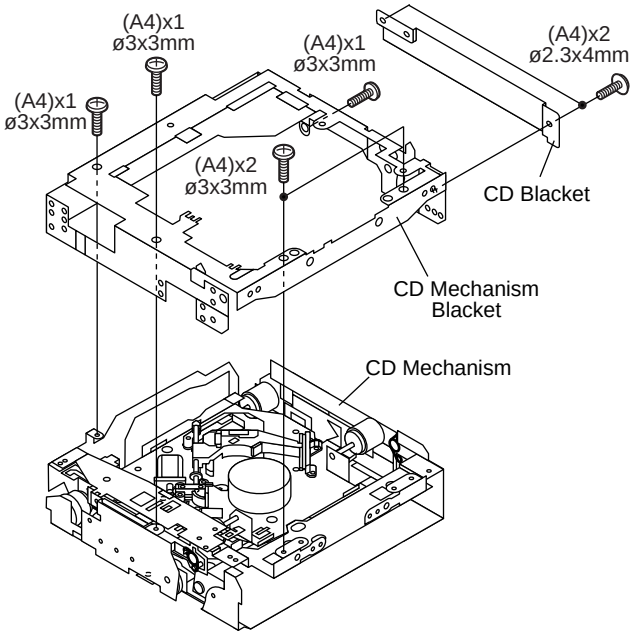


Figure 20-2

How to remove CD sled motor (See Fig. 20-3)

1. Remove the screws (B1) x 2 pcs., and remove the CD sled motor.

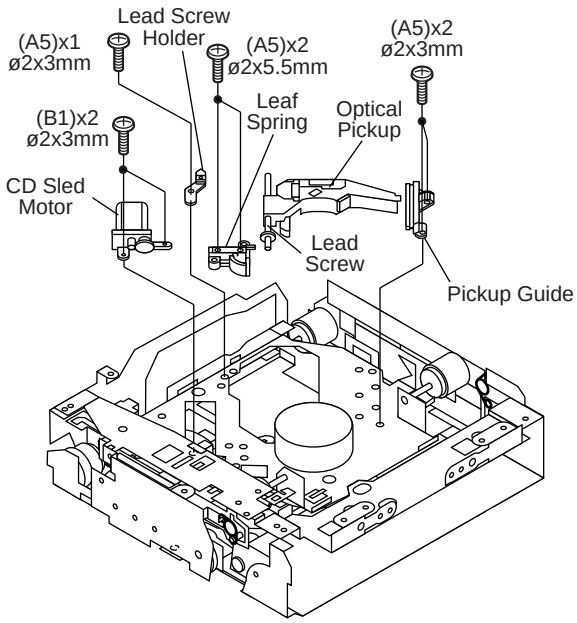


Figure 20-3

How to remove CD spindle motor (See Fig. 21-1 and 21-2)

1. Remove the stop washer (C1) x 1, metal fitting (C2) x 1, spring (C3) x 1, and another metal fitting (C4) x 1.
2. Remove the screws (C5) x 2 pcs.
3. Move the unit in the direction indicated by the arrow to take it out.
4. Remove the screws (C6) x 2 pcs., and remove the CD spindle motor.

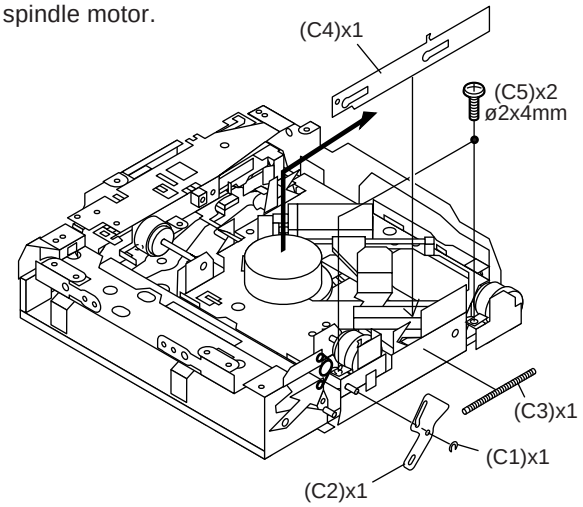


Figure 21-1

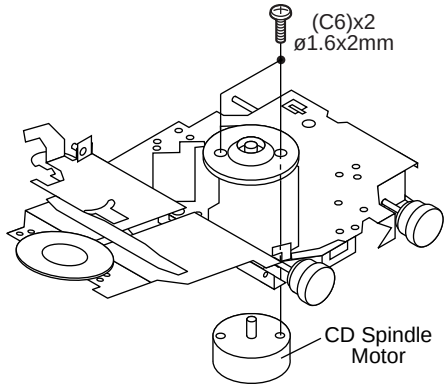


Figure 21-2

How to remove CD loading motor (See Fig. 21-3)

1. Remove the screws (D1) x 4 pcs.
2. Remove the springs (D2) x 2.
3. Remove the fitting (D3) x 1.
4. Pull out the CD loading motor in the direction indicated by the arrow.

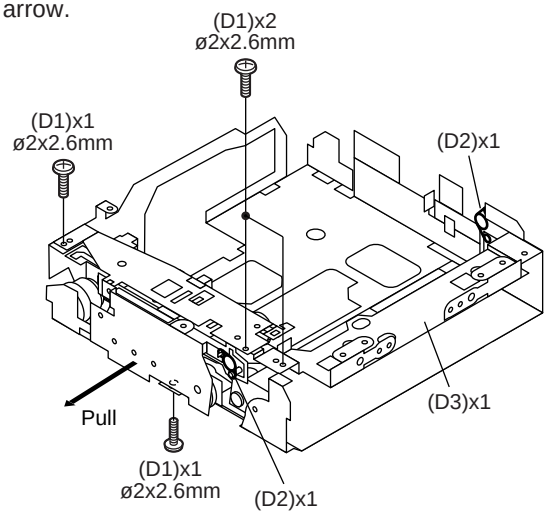


Figure 21-3

How to eject CD unit (See Fig. 21-4)

1. Unsolder the loading motor lead wire, connect the black lead wire to + and red lead wire to GND, and apply +5V to eject the CD unit.

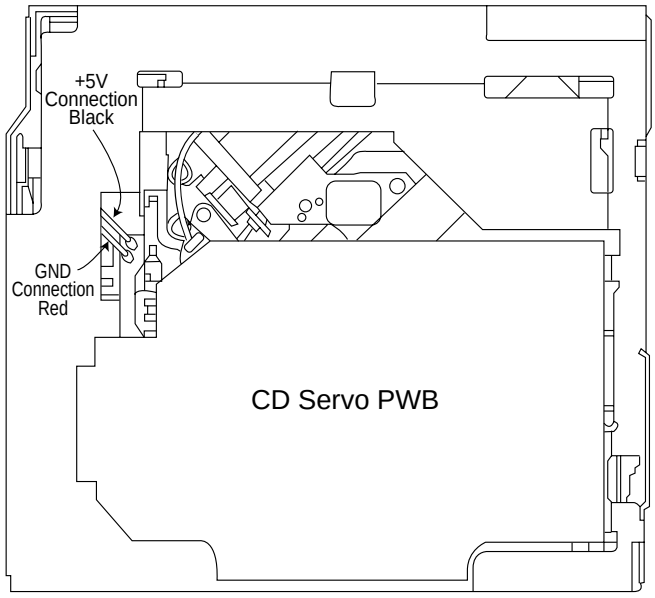


Figure 21-4

How to reassemble CD mechanism unit (See Fig. 21-5)

1. Lift the gear block (E1) x 1.
2. Insert the mechanism block (E2) x 1 into the mechanism chassis (E3) x 1.
3. Engage the gear properly and place it.

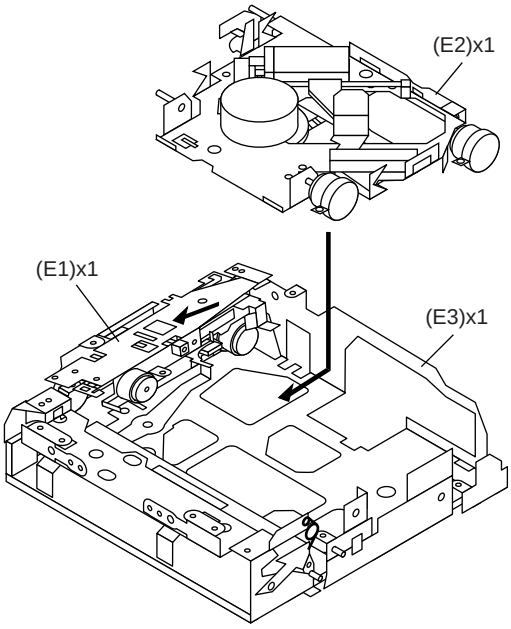


Figure 21-5

WIRING PROCESS DIAGRAM

1-BIT SECTION

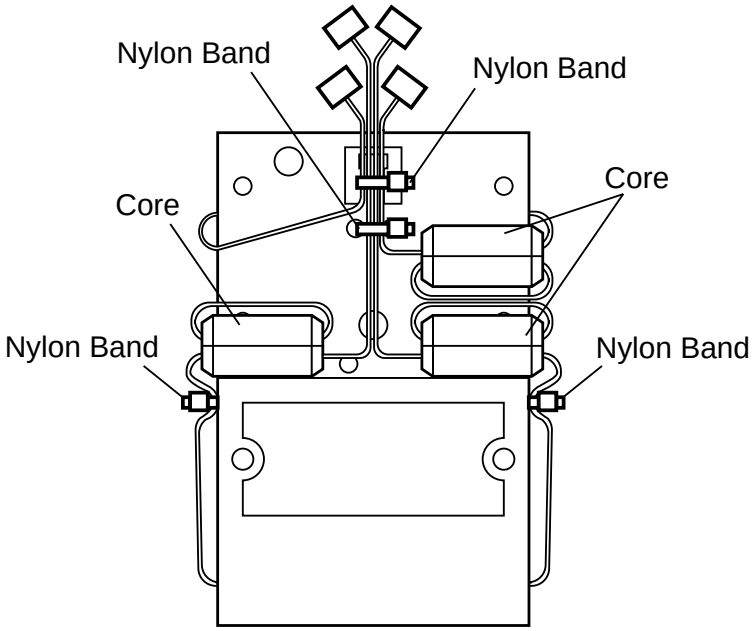


Figure 22-1

ADJUSTMENT

TUNER SECTION

fL: Low-range frequency
fC: Middle-range frequency
fH: High-range frequency

• FM Mute Level

Signal generator: 400 Hz, 22.5 kHz, FM modulated

Frequency	Display	Adjusting Parts	Instrument Connection
98 MHz (26dB) (EFM)	98 MHz	VR1	Input: FM Antenna Terminal Output: Headphones Terminal

Turn the VR1 to set the volume to 26dB.

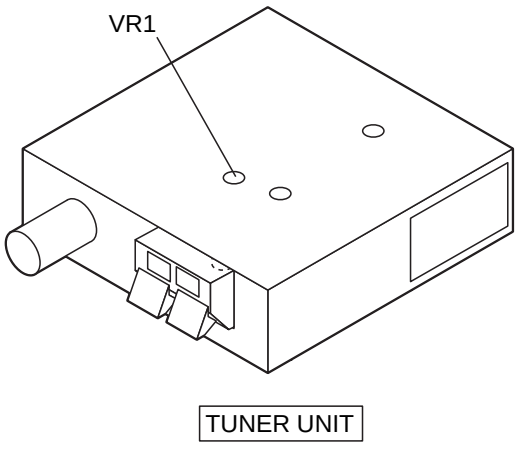


Figure 22-2

TEST MODE

When the tuner test mode is set, the initial setting of frequencies is stored in the preset memory as shown in Table 1. For details, refer to "8. Tuner test" on page 41.
The frequencies registered by the user will be changed when the above setting is performed.

Preset Memory	Frequency FM	Preset Memory	Frequency AM
P1	87.50 MHz	P6	522 kHz
P2	108 MHz	P7	1,620 kHz
P3	90.00 MHz	P8	603 kHz
P4	106.00 MHz	P9	1,404 kHz
P5	98.00 MHz	P10	990 kHz

Table 1 Memory setting

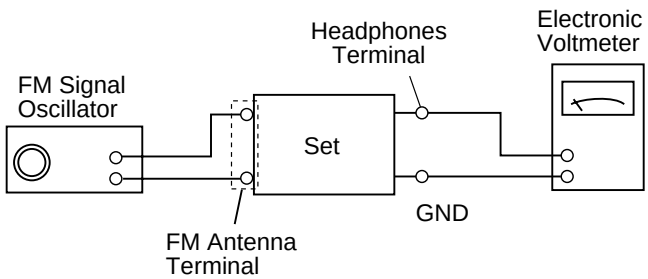


Figure 22-3

MD SECTION

Enter the test mode, adjust or set as shown in the following table according to the repair operations.

Execution item required / Repair operations	TEMP basic setting	Checking EEPROM setting	Writing the EEPROM setting	AUTO-YOBI adjustment	AUTO-adjustment	AUTO-AFB adjustment	Writing the EEPROM setting	Operation check	
	TEMP	EEPROM_SET	TEST-CANCEL	AUTO–YOBI	AUTO–ADJ	AUTO–AFB	TEST-CANCEL	TEST-PLAY	TEST-REC
PICK replacement	—	①	②	③	④	⑤	⑥	⑦	⑧
HEAD replacement	—	—	—	—	—	—	—	—	①
MECHANISM replacement	—	①	②	③	④	⑤	⑥	⑦	⑧
MAIN PWB assembly replacement	①	②	③	④	⑤	⑥	⑦	⑧	⑨
MD microcomputer replacement	—	①	②	—	—	—	②	③	④
MD LSI replacement	—	—	—	①	②	③	④	⑤	⑥
RF IC replacement	①	②	③	④	⑤	⑥	⑦	⑧	⑨
EEPROM IC replacement	①	②	③	④	⑤	⑥	⑦	⑧	⑨

number ① to ⑧ and ⑨ indicate the order of inplementation.

" – " is an item that you don't have to execute.

The EEPROM writing result is shown at the end of the test mode

OK_EEPROM: "SET" and "YOBI COMPLETE" were written normally

WR_EEPROM: Although "SET" was written normally, it was not written in the "YOBI COMPLETE" state.

→ Peform "AUTO-YOBI" adjustment. After making a normal adjustment, write the preliminary adjustment into the EEPROM.

NG_EEPROM: "SET" could not be written.

→ Check the connection between the MD microcomputer and the EEPROM.

1. Preparation for adjustment

Test disc

	Type	Test disc	Part No.
1	High reflection disc	TGYS1 (SONY) [for Playback]	RRCDT0101AFZZ
2	Low reflection disc	MiniDisc for checking the recording operation (commercially available MD)	————————
3	————————	Head Adjusting transparent	RRCDT0103AFZZ
4	Low reflection disc	Pre-adjustment disc [TEAC Test MD]	88GMMD-213AS or 88GMMD-318

Extension Cable (See Fig. 31-1)

	Type	Part No.
1	Extension PWB for servicing	RUNTK0532AFZZ
2	Extension Connector (2 Pin)	QCNWK0129AFZZ
3	Extension Flat Cable (6 Pin)	QCNWK0130AFZZ
4	Extension Flat Cable (5 Pin)	QCNWK0109AFZZ
5	Extension Flat Cable (28 Pin)	QCNWK0108AFZZ

2. Test Mode

Test mode setting method

1. While the +10 forward button (+10) and the REC LEVEL/MD Fast Forward button (▶▶|) are pressed down together, press the POWER button and then MD PLAY button. (State Ⓐ is changed to state Ⓑ.)
2. Insert the playback-only disc 1 (high reflection disc) or the recordable disc 2 (low reflection disc). (State is changed to Ⓒ.)

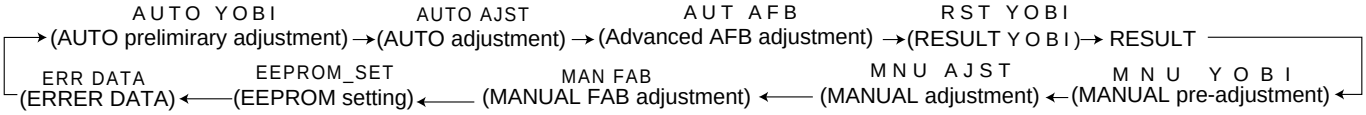
Above procedures will set the unit to the test mode.

Ⓐ tsm 22○○e○○ : TEST MODE ○○ represents version of MD microcomputer.
↓ STOP state
Ⓑ EJECT
↓
Ⓒ AUT AJST

(When the MD STOP button is pressed in the Ⓒ state, the indication Ⓐ is restored. To restore Ⓒ again, press the CD PLAY/PAUSE button.)

● Entering the specific mode

Whenever the CD PLAY/PAUSE button is pressed, the mode is changed.
If the REC button is pressed instead, the mode will change in the opposite order.



● Cancel of test mode

The mode is written on EEPROM by pressing the POWER button. If the POWER button is pressed again, the unit returns to the normal state.

* Before pressing the POWER button, make sure that the AUTO pre-adjustment, AUTO adjustment, and AUTO AFB adjustment have been completed.
* After the value of EEPROM is changed or the AUTO pre-adjustment, AUTO adjustment, and AUTO AFB adjustment are performed again, write on EEPEOM by pressing the POWER button. (When the POWER button is pressed, data is written on EEPROM.)
* When the value of EEPROM has been changed, write the data on EEPROM once. To perform adjustment using the data, set the unit to the TEST mode again, perform AUTO pre-adjustment, AUTO adjustment, and AUTO AFB adjustment, and then write the data again on EEPROM.

• Test Mode

1. EJECT mode	• TEMP setting (of EEPROM setting) • CONTROL setting (of EEPROM setting) • Setting of laser power (record/playback power)
2. AUTO pre-adjustment mode	• Automatic pre-adjustment is performed.
3. AUTO adjustment mode	• Automatic adjustment is performed. (After adjustment the grating adjustment mode is set.)
4. AUTO AFB adjustment mode	• Focus adjustment is performed.
• RESULT sub-mode • RESULT mode (final adjustment) • MANUAL pre-adjustment mode • MANUAL adjustment mode • MANUAL AFB adjustment mode • ERROR DATA	• Therefore do not set this mode since it is not necessary for the service.
5. EEPROM setting mode	• Various coefficients of digital servo are changed manually.
6. TEST-PLAY mode	• Continuous playback from the specified address is performed. • C1 error rate measurement, ADIP error rate measurement.
7. TEST-REC mode	• Continuous recording from the specified address is performed.
8. INNER mode	• The position where the INNER switch is turned on is measured.

1. EJECT mode

Step No.	Setting Method	Remarks	Display
Step 1	Test mode EJECT state		[_ _ E J E C T _ _ _]
Step 2	Press the CD STOP button.	Playback power output state	[p p w _ _ _ _ _ _ _]
Step 3	Press the CD STOP button.	Rec power output state	[r p w _ _ _ _ _ _ _]
Step 4	Press the CD STOP button.	Therefore do not set this mode since it is not necessary for the service.	[x p w _ _ _ _ _ _ _]
Step 5	Press the TUNER (BAND) button.	TEMP setting of EEPROM setting (The TEMP setting reference of the EEPROM.)	
Step 6	Press the AUX (DEMO) button.	CONTROL setting of EEPROM setting (The CONTROL setting reference of the EEPROM.)	

* Normally, the voltage at pin 3 of IC1401 becomes as follows:
  Playback power output (ppw): Approx. DC 0.2V
  Recording power output (rpw): Approx. DC 1.8V

Confirmation of pickup laser power

It is possible to confirm in the record/playback mode with the aid of laser power meter. However, since the laser power meter measurement is characterized with dispersion, obtained data are used only for confirmation.

Reference data (at room temperature 25°C)
Playback: 0.72 ± 0.1 mW
Record: 5.5 ± 0.5 mW

Note:

Never see directly the laser light. Otherwise your eyes are injured.

2. AUTO pre-adjustment mode (Low reflection disc only)

With the pre-adjustment disc (MMD213A or MMD-318)

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m ○○○○ e ○○]
Step 2	Press once the CD PLAY button.	AUTO adjustment menu	[A U T O _ A J S T _]
Step 3	Press the MD REC button.	AUTO pre-adjustment menu	[_ A U T _ Y O B I _]
Step 4	Press once the MD PLAY button. End of adjustment	• During automatic adjustment ✳✳✳ changes as follows. HAo→ • • • • • • • • • • →TCO If adjustment is OK, Step 5. If adjustment is NG, Step 6.	[✳✳✳ : _ _ _ _ _ _]
Step 5	Press the MD STOP button.	STEP 2	[_ C O M P L E T E _]
Step 6	Adjustment value output Press the MD STOP button.	 STEP 2 AUTO adjustment menu	[C a n ' t _ A D J .]

• ✳✳✳ : Adjustment name

3. AUTO adjustment mode

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m ○○○○ e ○○]
Step 2	Press once the CD PLAY button.	AUTO adjustment menu	[A U T O _ A J S T _]
Step 3	Press once the MD PLAY button. End of adjustment	• In case of high reflection disc ✳✳✳ changes as follows. PEG→HAG • In case of low reflection disc ✳✳✳ changes as follows. PEG→LAG If adjustment is OK, Step 4. If adjustment is NG, Step 7.	[✳✳✳ : _ _ _ _ _ _]
Step 4	 Press the MD PLAY button. Press the MD STOP button.	For grating adjustment STEP 5 STEP 2	[_ C O M P L E T E _] * Note 1
Step 5	Continuous playback (pit section) Continuous playback (groove section)	Confirmation of C1 error	[s □□□□ c ○○○○] [a □□□□ c ○○○○]
Step 6	Press the CD STOP button. Press the MD STOP button.	Conformation of ADIP error (Low reflection only) STEP 2 AUTO adjustment menu	[a □□□□ a ○○○○]
Step 7	Adjustment value output Press the MD STOP button.	 STEP 2 AUTO adjustment menu	[C a n ' t _ A D J .]

• ✳✳✳ : Adjustment name, ○○ : Measurement value, □□□□ : Address

*** Note 1:**

Depending on the disc, "#COMPLETE_" may be displayed, which means that the ON position of the INNER switch cannot be identified clearly. In this case, check the switch in the INNER mode using the specified disc. However, this is not a problem in AUTO adjustment.

4. AUTO AFB adjustment mode

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button two times.	AUTO AFB adjustment menu	[_ A U T _ A F B _ _]
Step 3	Press once the MD PLAY button.		[F A B ○○ _△△△△]
Step 4	Adjustment value output Press the MD STOP button.	STEP 2 AUTO AFB adjustment	[○○ _ △△△△△△△△]

• ○○ , △△△△ : Measurement value

5. EEPROM setting mode

a) Focus setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M_ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the MD PLAY button.	[F G _ _ _ _ _ _ ◆◆]
Step 5	Press the CD PLAY button.	[F G 2 _ _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[F F 0 _ _ _ _ _ ◆◆]
Step 7	Press the CD PLAY button.	[F F 1 _ _ _ _ _ ◆◆]
Step 8	Press the CD PLAY button.	[F F 2 _ _ _ _ _ ◆◆]
Step 9	Press the CD PLAY button.	[F Z H L E V _ _ ◆◆]
Step 10	Press the CD PLAY button.	[F O K L E V h _ ◆◆]
Step 11	Press the CD PLAY button.	[F O K L E V L _ ◆◆]
Step 12	Press the CD PLAY button.	[F O S T n _ _ _ ◆◆]
Step 13	Press the CD PLAY button.	[D S C J G _ _ _ ◆◆]

• ◆◆ : Setting value

b) Spin setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M_ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button.	[_ S p i n d l e _ _]
Step 5	Press the MD PLAY button.	[S P G _ _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[S P G _ i n _ _ ◆◆]
Step 7	Press the CD PLAY button.	[S P G _ m i d _ ◆◆]
Step 8	Press the CD PLAY button.	[S P G _ o u t _ ◆◆]
Step 9	Press the CD PLAY button.	[S P G M _ _ _ _ ◆◆]
Step 10	Press the CD PLAY button.	[S P 1 _ _ _ _ _ ◆◆]
Step 11	Press the CD PLAY button.	[S P 2 _ _ _ _ _ ◆◆]
Step 12	Press the CD PLAY button.	[S P 2 2 _ _ _ _ ◆◆]
Step 13	Press the CD PLAY button.	[S P 3 _ _ _ _ _ ◆◆]
Step 14	Press the CD PLAY button.	[S P 4 _ _ _ _ _ ◆◆]
Step 15	Press the CD PLAY button.	[S P 5 _ _ _ _ _ ◆◆]
Step 16	Press the CD PLAY button.	[S P 5 2 _ _ _ _ ◆◆]
Step 17	Press the CD PLAY button.	[S P D L I M _ _ ◆◆]
Step 18	Press the CD PLAY button.	[S P K L E V m _ ◆◆]

• ◆◆ : Setting value

C) Tracking setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M_ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button two times.	[_ T r a c k i n g _]
Step 5	Press the CD PLAY button.	[T G _ _ _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[T G 2 _ _ _ _ _ ◆◆]
Step 7	Press the CD PLAY button.	[T F 0 _ _ _ _ _ ◆◆]
Step 8	Press the CD PLAY button.	[T F 1 _ _ _ _ _ ◆◆]
Step 9	Press the CD PLAY button.	[T F 2 _ _ _ _ _ ◆◆]
Step 10	Press the CD PLAY button.	[F T 3 _ _ _ _ _ ◆◆]
Step 11	Press the CD PLAY button.	[S V C N T 4 _ _ ◆◆]
Step 12	Press the CD PLAY button.	[T R B L V o _ _ ◆◆]
Step 13	Press the CD PLAY button	[T R B L V t _ _ ◆◆]
Step 14	Press the CD PLAY button	[T R K L V o _ _ ◆◆]
Step 15	Press the CD PLAY button	[T R K L V t _ _ ◆◆]
Step 16	Press the CD PLAY button	[T D P W o _ _ _ ◆◆]
Step 17	Press the CD PLAY button	[T D P W t _ _ _ ◆◆]
Step 18	Press the CD PLAY button	[S L C T o _ _ _ ◆◆]
Step 19	Press the CD PLAY button	[S L C T t _ _ _ ◆◆]
Step 20	Press the CD PLAY button.	[S L C T m _ _ _ ◆◆]
Step 21	Press the CD PLAY button.	[T C R S C 1 P _ ◆◆]
Step 22	Press the CD PLAY button.	[T C R S C 0 h _ ◆◆]
Step 23	Press the CD PLAY button.	[T C R S C 0 L _ ◆◆]
Step 24	Press the CD PLAY button.	[T C R S C H h _ ◆◆]
Step 25	Press the CD PLAY button.	[T C R S C H L _ ◆◆]
Step 26	Press the CD PLAY button.	[C O T L V p _ _ ◆◆]
Step 27	Press the CD PLAY button.	[C O T L V r _ _ ◆◆]
Step 28	Press the CD PLAY button.	[J P i n t _ _ _ ◆◆]
Step 29	Press the CD PLAY button.	[K I K 1 0 _ _ _ ◆◆]

• ◆◆ : Setting value

d) Sled setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M_ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button three times.	[_ _ _ S l e d _ _ _]
Step 5	Press the MD PLAY button.	[S L G _ _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[S L 2 _ _ _ _ _ ◆◆]
Step 7	Press the CD PLAY button.	[S L D L I M _ _ ◆◆]
Step 8	Press the CD PLAY button.	[S L D L E V _ _ ◆◆]
Step 9	Press the CD PLAY button.	[S L K L V k _ _ ◆◆]
Step 10	Press the CD PLAY button.	[S L K L V t _ _ ◆◆]
Step 11	Press the CD PLAY button.	[S L K L V m _ _ ◆◆]
Step 12	Press the CD PLAY button.	[S L B K m _ _ _ ◆◆]
Step 13	Press the CD PLAY button.	[S L K r i o _ _ ◆◆]
Step 14	Press the CD PLAY button.	[S L K r o i _ _ ◆◆]
Step 15	Press the CD PLAY button.	[S L K l i o _ _ ◆◆]
Step 16	Press the CD PLAY button.	[S L K l o i _ _ ◆◆]
Step 17	Press the CD PLAY button.	[I N N E R 1 _ _ ◆◆]
Step 18	Press the CD PLAY button.	[I N N E R u _ _ ◆◆]
Step 19	Press the CD PLAY button.	[E J _ W A I T _ ◆◆]

• ◆◆ : Setting value

e) TEMP setting

Step No.	Setting Method	Display
Step 1	EJECT state (or state without mechanism)	[_ _ E J E C T _ _ _]
Step 2	Press the TUNER (BAND) button.	[T E M P_ ○○ _ ◆◆]

• ◆◆ : Setting value, ○○ : Measurement value

f) CONTROL setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M_ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button five times.	[_ C o n t r o l _ _]
Step 5	Press the MD PLAY button.	[C O N T R L 1 _ ◆◆]
Step 6	Press the CD PLAY button.	[C O N T R L 2 _ ◆◆]
Step 7	Press the CD PLAY button.	[A D J T T M _ _ ◆◆]
Step 8	Press the CD PLAY button.	[H D E Q A D _ _ ◆◆]
Step 9	Press the CD PLAY button.	[L D E Q A D _ _ ◆◆]
Step 10	Press the CD PLAY button.	[G D E Q A D _ _ ◆◆]
Step 11	Press the CD PLAY button.	[G D E Q A D 2 _ ◆◆]
Step 12	Press the CD PLAY button.	[H D E Q B C _ _ ◆◆]
Step 13	Press the CD PLAY button.	[L D E Q B C _ _ ◆◆]
Step 14	Press the CD PLAY button.	[G D E Q B C _ _ ◆◆]
Step 15	Press the CD PLAY button.	[G D E Q B C 2 _ ◆◆]
Step 16	Press the CD PLAY button.	[H A L S G _ _ _ ◆◆]
Step 17	Press the CD PLAY button.	[L A L S G _ _ _ ◆◆]
Step 18	Press the CD PLAY button.	[G A L S G _ _ ◆◆]
Step 19	Press the CD PLAY button.	[H A L S O F S _ ◆◆]
Step 20	Press the CD PLAY button.	[L A L S O F S _ ◆◆]
Step 21	Press the CD PLAY button.	[G A L S O F S _ ◆◆]

• ◆◆ : Setting value

g) ADJUST setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M_ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button six times.	[A D J S E T _ _ _ _]
Step 5	Press the MD PLAY button.	[C O K _ _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[F A T _ _ _ _ _ ◆◆]
Step 7	Press the CD PLAY button.	[T A T _ _ _ _ _ ◆◆]
Step 8	Press the CD PLAY button.	[C A T _ _ _ _ _ ◆◆]
Step 9	Press the CD PLAY button.	[F A B _ _ _ _ _ ◆◆]
Step 10	Press the CD PLAY button.	[S T R _ _ _ _ _ ◆◆]
Step 11	Press the CD PLAY button.	[S F S _ _ _ _ _ ◆◆]
Step 12	Press the CD PLAY button.	[S T C _ _ _ _ _ ◆◆]

• ◆◆ : Setting value

h) REC bit setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M _ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button seven times.	[R E C b i t _ S E T]
Step 5	Press the MD PLAY button.	[S P _ W R 5 0 _ ◆◆]
Step 6	Press the CD PLAY button.	[S P _ W R 5 6 _ ◆◆]
Step 7	Press the CD PLAY button.	[S P _ W R 4 4 _ ◆◆]
Step 8	Press the CD PLAY button.	[S P _ W R 5 3 _ ◆◆]
Step 9	Press the CD PLAY button.	[L P 2 W R 5 0 _ ◆◆]
Step 10	Press the CD PLAY button.	[L P 2 W R 5 6 _ ◆◆]
Step 11	Press the CD PLAY button.	[L P 2 W R 4 4 _ ◆◆]
Step 12	Press the CD PLAY button.	[L P 2 W R 5 3 _ ◆◆]
Step 13	Press the CD PLAY button.	[L P 4 W R 5 0 _ ◆◆]
Step 14	Press the CD PLAY button.	[L P 4 W R 5 6 _ ◆◆]
Step 15	Press the CD PLAY button.	[L P 4 W R 4 4 _ ◆◆]
Step 16	Press the CD PLAY button.	[L P 4 W R 5 3 _ ◆◆]
Step 17	Press the CD PLAY button.	[R V D _ _ _ _ _ ◆◆]

• ◆◆ : Setting value

6. TEST-PLAY mode

(For confirmation of the playback ability at the named address.)

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m○○○○e ○○]
Step 2	Press the TUNER (BAND) button.	TEST-PLAY menu	[T E S T _ P L A Y _]
Step 3	Press the CD STOP button. Press the MD PLAY button.	ADDRESS setting (Target address initial value is indicated)	[A D R E S _ 0 0 3 2]
Step 4	Continuous playback (pit section) Continuous playback (groove section)	(Address + C1 error indication) (Address + C1 error indication)	[s □□□□ c ○○○○] [a □□□□ c ○○○○]
Step 5	Press the CD STOP button. Continuous playback (groove section)	(Address + ADIP error indication)	[a □□□□ a ○○○○]
Step 6	Press the MD STOP button.	TEST-PLAY menu	[T E S T _ P L A Y _]

• Whenever the TUNER (BAND) button is pressed in the address setting mode, the address changes as follows.
0 0 3 2 → 0 3 C 0 → 0 7 0 0 → 0 8 A 0 → 0 9 5 0 →0 0 3 2 → ……

7. TEST-REC mode

With recording mini disk (For confirmation of the playback ability at the named address.)

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m○○○○e ○○]
Step 2	Press the TUNER (BAND) button two times.	TEST-REC menu	[T E S T _ R E C _ _]
Step 3	Press the CD STOP button.	ADDERS setting (indication of address initial value)	[a 0 0 3 2 _ p w ▽▽]
Step 4	Press the MD PLAY button.	Continuous recording	[a □□□□ _ p w ▽▽]
Step 5	Press the MD STOP button.	TEST-REC menu	[T E S T _ R E C _ _]

• Whenever the TUNER (BAND) button is pressed in the address setting mode, the address changes as follows.
0 0 3 2 → 0 3 C 0 → 0 7 0 0 → 0 8 A 0 → 0 9 5 0 →0 0 3 2 → ……

8. INNER mode

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m○○○○e ○○]
Step 2	Press the AUX (DEMO) button.	INNER menu	[_ _ I N N E R _ _ _]
Step 3	Press the MD PLAY button.	INNER switch position measurement (SUBQ address and C1 error are also indicated.)	[s □□□□ c ○○○○]
Step 4	Press the MD STOP button.	INNER menu	[_ _ I N N E R _ _ _]

• □□□□ : Address

① Adjustment

Load a high-reflective TYGS1 test disc.

Note:

Adjust the position of the lead-in switch between FF85 to FFD2.

1. Loosen the screw (A1) x 1 pc., fixing the mechanism switch PWB.
2. Retighten the screw while pushing the PWB in the direction of arrow A if the switch position is at FF85 or lower, or in the direction of arrow B if it is at FFD2 or higher, and measure its position again.
   After adjusting the position, fix it with the screw (A1) x 1 pc. (See Fig. 30-1)

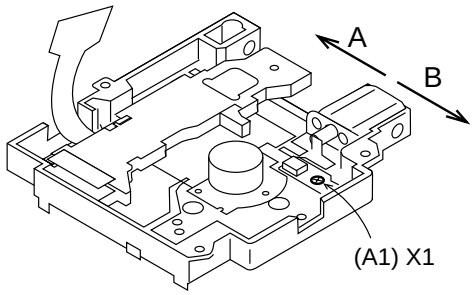


Figure 30-1

② Confirmation

Check that the display shows "_COMPLETE_" instead of "#COMPLETE_" in step 4 of the AUTO adjustment mode.

● Rotating the loading motor forcibly

The loading motor can be rotated forcibly by rotating the VOL UP/DOWN button while STOP or EJECT in the test mode appears on the display.

● Magnetic head mounting position check

- Check the mounting position whenever the magnetic head and the optical pickup are replaced.
- Move the optical pickup to the center to adjust the position easily.

1. Set the transparent disc for checking the head.
2. Press down the magnetic head up shift arm by hand to raise the magnetic head.
3. View the set from above to check whether the magnetic head aligns with the optical pickup objective lens.
4. Check that the magnetic head moves up and down smoothly. (See Fig. 30-2)

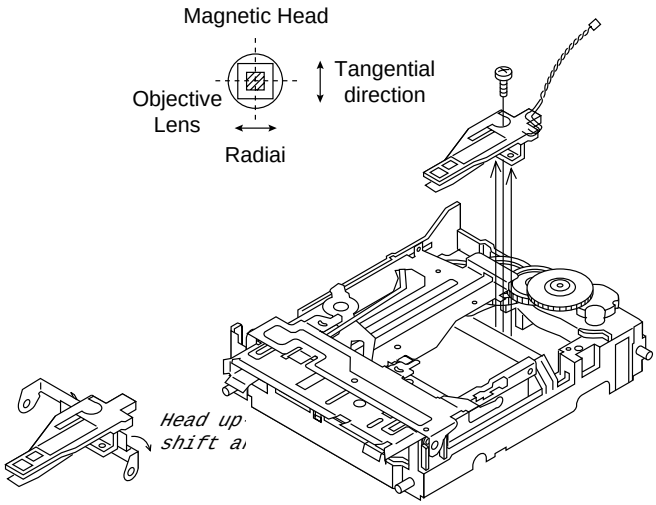


Figure 30-2

● Mechanism Adjustment

1. Optical pickup grating inspecting method

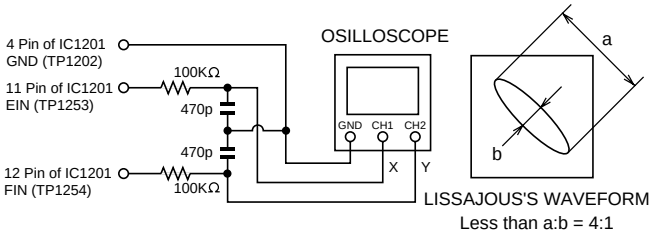


Figure 30-3 Optical Pickup Grating Deviation Measuring Method

After auto adjustment (COMPLETE appears) in the test mode (auto) using the high reflection MD disc TGYS1, adjust the Lissajou's waveform (x-y) of EOUT to FOUT.

1. Slightly loosen the 3 screws of the spindle motor, adjust while observing the Lissajou's waveform.
2. After adjustment, tighten screws ①, ②, and ③ in numerical order. (See Fig. 30-4)

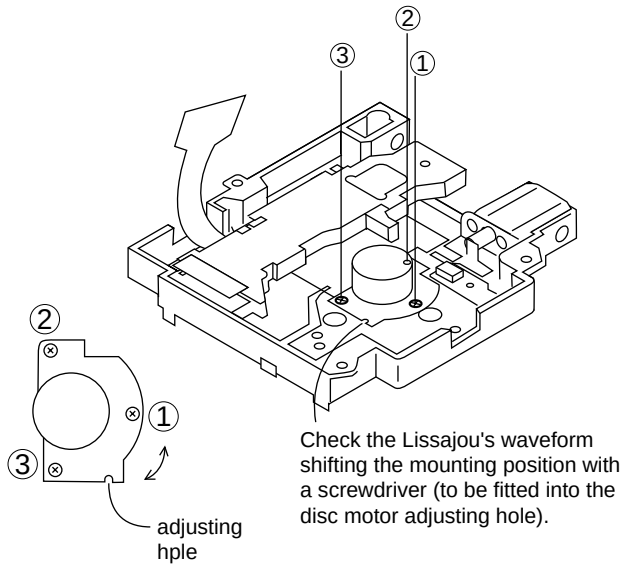


Figure 30-4

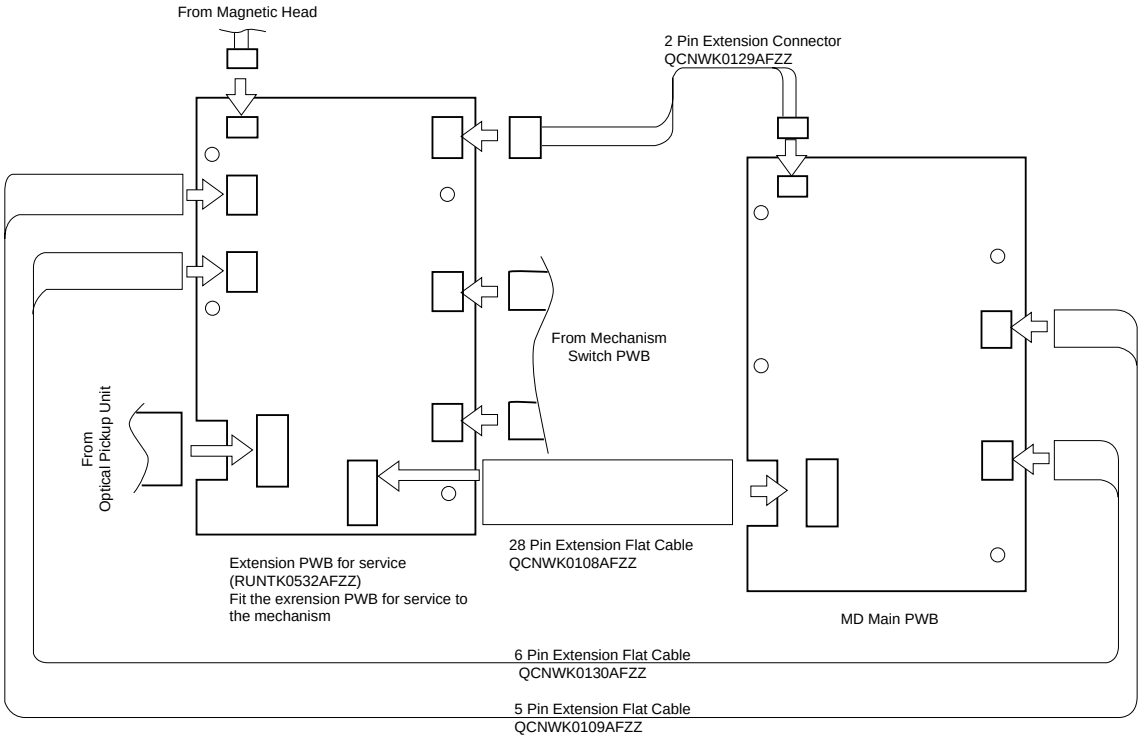


Figure 31-1

● **1-bit amplifier's output offset voltage adjustment**

Adjust VRA100 and VRA101 so that the DC voltage between speaker terminals + and - is set to 0 ± 5 mV at AC 230 V.

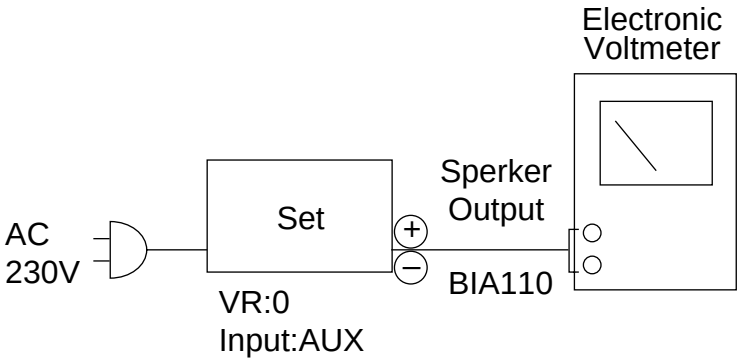


Figure 31-2

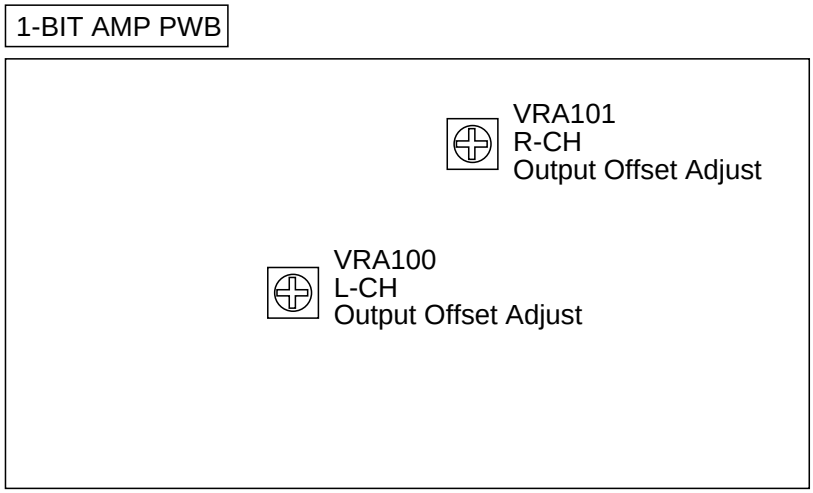


Figure 31-3

ERROR MESSAGE LIST

MD error messages

Error Display	Error Message	Remarks
Can't REC	• Errors occurred 10 times continuously in the REC-PLAY mode. • In the REC-PLAY mode, recording enable cluster became 0 due to errors. • Cannot read the address. The unit cannot enter the REC mode for 20 seconds regardless of repetitive tries.	• Check for scratch, dust, fingerprints, or black spots on the disc. Check that the disc is not eccentric or largely deflected.
Can't COPY	• During the REC-PAUSE or REC-PLAY mode, the disc was judged as follows according to the channel status of the digital signal input at D-IN: ① It is not an audio disc. ② It is not for public use. ③ Due to the inversion of COPY bit on the CD, the contents cannot be copied.	• Check if it is the copy-prohibited disc (Example: CD-R etc.).
NO SIG.	• During the REC-PAUSE, REC-PLAY, or CD FUNC playback mode, the following occurred responding to the digital signal input at D-IN: ① Digital IN PLL is unlocked. ② PLL is locked even if FS is not 44.1 kHz.	• Check for an abnormality with the D-IN signal line.
TOC FULL	• There is no space left for track numbers or character information (track names, disc name, etc.). • No recordable space was found when entering the REC-PAUSE mode.	• Replace the disc with the one on which the space for recording UTOC is left.
Can't u READ	• FTNO > LTNO has been recognized. • FTNO is not 0 or 1. • Cannot read UTOC recorded on the disc.	• There is an error with UTOC data. Replace the disc.
TOC FROM a	• The start address > end address has been recognized.	• There is an error with UTOC data. Replace the disc.
TOC FROM L0-4	• One of UTOC 0-4 data is looping.	• There is an error with UTOC data. Replace the disc.
NOT AUDIO	• Non-audio data is recorded in the track mode of currently selected track number.	• Select another track number or replace the disc.
? DISC	• The ASCII codes data "MINI" of the system ID written in TOC is not correct. • The disc type written in TOC does not belong to either of the pre-master MD, recording MD or hybrid MD.	• This is a nonstandard disc. Replace the disc and check.
DISC FULL	• No recordable space was found when entering the REC-PAUSE mode.	• Replace the disc with the one on which the recording space for UTOC is left.
PROTECT	• You tried recording or editing on a disc with the erase-prevention tab moved. • You tried editing the track that is write-protected due to the information written in UTOC.	• Move the tab back to its original position and try recording or editing again. * Try editing other tracks that are not write-protected.
Can't EDIT	• Conditions in each editing function have not been satisfied.	• The unit is not operated properly. Try again in right procedures.
TEMP OVER	• The temperature inside of the set (MD unit) becomes too high due to an error.	• Check the remedy on the troubleshooting chart. • Is the unit used in a place of high temperature?
Can't READ ✳ (✳ : Number or symbol)	• The read data is not correct, or data has not been read properly. • An error occurred while recording sound data, and the recording could not be completed.	• There may be an error in TOC or UTOC data or scratches on the disc. Replace the disc.
Can't s READ r READ	• The read data is not correct. • TOC information cannot be read. • There may be scratches on the disc. Replace the disc.	• TOC information on the disc does not comply with the MD standard. Replace the disc.
Can't WRITE	• An error occurred while overwriting UTOC, and it could not be overwritten properly.	• There may be scratches on the disc. Replace the disc.
BLANK MD	• Although UTOC is read, total number of letters of TNO and NAME is 0.	• Check that the disc is a recordable disc by recording on it.
Er-MD41	• UTOC can be read but cannot be overwritten.	• Is the recording head positioned properly? Check the connection between the PWB and recording head.
Er-MD80	• EEPROM data is not correct.	• Reset the unit and try again. If it does not restore the unit, replace EEPROM.
MD P ERR	• Due to the abnormality with the power supply, MD unit cannot be operated properly.	• Reset the unit and try again. If it does not restore the unit, the power supply circuit is defective. Check the DC voltage of Q570 Ⓔ , Q550 Ⓔ , and Q853 Ⓔ .

The details description of mechanism error

Error Display	Error Message
E r - M D 1 ✳	Cannot eject the disc.
E r - M D 2 ✳	The head does not ascend.
E r - M D 3 ✳	The head does not descend.

		HINF (93 Pin of IC1401)
✳ = E	EJECT complete position	< 1.0V
✳ = M	LOAD/EJECT halfway position	> 3V
✳ = L	LOAD complete position	1.31 ~ 2.35V
✳ = D	HEAD DOWN position	1.01 ~ 1.3V

EEPROM WRITING PROCEDURE

● EEPROM (IC1402) writing procedure

1. Method for setting the reference temperature value

(This setting should be performed quickly at a room temperature, between 21°C to 29°C when the PWB is not hot.)

① When replacing the EEPROM, wait until it has cooled down.
② Connect the main unit using the single MD main PWB.
③ Enter the test mode as shown on page 24.
"EJECT"
④ Press the TUNER (BAND) button.
"TEMP ○○ ◆◆"
○○: Measured temperature, ◆◆: Temperature setting
⑤ Find the temperature correction value for the current ambient temperature on the following table. Adjust the temperature correction value using the VOLUME UP/DOWN button.

Ambient Temperature	Correction
+ 21.0 °C ~ + 23.2 °C	-1 H
+ 23.3 °C ~ + 26.8 °C	± 0 H
+ 26.9 °C ~ + 29.0 °C	+1 H

An example: When ambient temperature is 22°C and measured temperature is 7AH
Temperature setting = 7A H - 01 H
= 79 H
* When the measured temperature fluctuates between two values, take lower one (if temperature fluctuates between 7AH and 79H, take 79H).

⑥ Press the POWER button and write the temperature setting into the EEPROM.

2. Method for making settings other than the reference temperature

① Install the MD main PWB in the mechanism, and connect it to the main unit.
② Enter the test mode as shown on page 23, and insert a disc.
"AUTO AJST"
③ Press the CD PLAY button seven times.
"EEPROM SET"
④ Set the value according to the EEPROM DATA LIST using the VOLUME UP/DOWN button.
⑤ Press the POWER button, and the settings will be written into the EEPROM.
⑥ Enter the test mode again, perform an "AUTO YOBI adjustment", and write the results into the EEPROM.

EEPROM DATA LIST (Version : 01)

Focus setting

Item indication		Setting
F G	○○	9 B H
F G 2	○○	B 1 H
F F 0	○○	1 0 H
F F 1	○○	7 0 H
F F 2	○○	E 0 H
F Z H L E V	○○	E D H
F O K L E V h	○○	0 7 H
F O K L E V L	○○	0 9 H
F O S T n	○○	2 C H
D S C J G	○○	0 D H

Spin setting

Item indication		Setting
S P G	○○	1 1 H
S P G — i n	○○	6 0 H
S P G — m i d	○○	4 B H
S P G — o u t	○○	3 B H
S P G M	○○	9 6 H
S P 1	○○	1 0 H
S P 2	○○	9 3 H
S P 2 2	○○	9 3 H
S P 3	○○	E D H
S P 4	○○	E E H
S P 5	○○	2 0 H
S P 5 2	○○	2 0 H
S P D L I M	○○	6 2 H
S P K L E V m	○○	1 6 H

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Tracking setting

Item indication		Setting
TG	○○	49H
TG2	○○	6BH
TF0	○○	10H
TF1	○○	6BH
TF2	○○	F0H
TF3	○○	08H
SVCNT4	○○	01H
TRBLVo	○○	62H
TRBLVt	○○	4CH
TRKLVo	○○	5BH
TRKLVt	○○	2BH
TDPWo	○○	67H
TDPWt	○○	21H
SLCTo	○○	00H
SLCTt	○○	50H
SLCTm	○○	53H
TCRSCIP	○○	16H
TCRSC0h	○○	00H
TCRSC0L	○○	FAH
TCRSCHh	○○	02H
TCRSCHL	○○	02H
COTLVP	○○	0AH
COTLVr	○○	28H
JPint	○○	00H
KIK10	○○	64H

Sled setting

Item indication		Setting
SLG	○○	46H
SL2	○○	10H
SLDLIM	○○	7FH
SLDLEV	○○	14H
SLKLVk	○○	60H
SLKLVt	○○	34H
SLKLVm	○○	60H
SLBKm	○○	08H
SLKrio	○○	64H
SLKroi	○○	62H
SLKlio	○○	64H
SLKloi	○○	60H
INNER1	○○	86H
INNERu	○○	D0H
EJ_WAIT	○○	78H

Control setting

Item indication		Setting
CONTRL1	○○	08H
CONTRL2	○○	01H
ADJTTM	○○	14H
HDEQAD	○○	92H
LDEQAD	○○	8EH
GDEQAD	○○	91H
GDEQAD2	○○	91H
MDEQBC	○○	8CH
LDEQBC	○○	8FH
GDEQBC	○○	8AH
GDEQBC2	○○	8AH
HALSG	○○	11H
LALSG	○○	11H
GALSG	○○	11H
HALSOFS	○○	FFH
LALSOFS	○○	00H
GALSOFS	○○	00H
AJST	○○	00H

ADJUST setting

Item indication		Setting
COK	○○	58H
FAT	○○	C0H
TAT	○○	3EH
CAT	○○	40H
FAB	○○	64H
STR	○○	0BH
SFS	○○	0DH
STC	○○	0DH

REC bit setting

Item indication		Setting
SP_WR50	○○	C0H
SP_WR56	○○	FEH
SP_WR44	○○	00H
SP_WR53	○○	16H
LP2WR50	○○	80H
LP2WR56	○○	20H
LP2WR44	○○	80H
LP2WR53	○○	00H
LP4WR50	○○	BFH
LP4WR56	○○	02H
LP4WR44	○○	80H
LP4WR53	○○	00H
RVD	○○	01H

DESCRIPTION OF CIRCUIT FOR 1-BIT UNIT (SEE THE WIRING DIAGRAMS ON PAGES 72 AND 73.)

Input

Signals over certain level input from BIA106 are sliced into waveforms by RA173 (RA174), DA126, and DA127 (DA128, DA129). The slice levels depend on the output of the unit.
In case of 25 W output setting, the level is set to gain distortion of approx. 10 % during output.
The level on the positive side is determined by RA175, RA177 and RA179 and that on the negative side by RA176, RA178, and RA180, respectively.
After DC cut by CA108, the signals are input to AD conversion IC.

$\Delta\Sigma$ modulation 1-bit conversion

The signals input to the AD conversion IC are converted into 1-bit signals for differential output.
For detailed technical description of 1-bit signal conversion, refer the technical manual for SM-SX100 already published.

Dead time and level shift

When the 1-bit signals are output from the AD conversion IC, the leading edge of the waveform is delayed for 20 to 25 nsec by DA103 (DA102, DA101, and DA100), RA115 (RA114, RA113, and RA112), and CA155 (CA154, CA153, and CA152), compared with the trailing edge.
As mentioned below, this operation is for reducing switching circuit loss in the final stage.
The signals are input to the buffer IC (AND gate IC) for the waveform format and are output.
Then the DC level is shifted by CA115 (CA114, CA113, and CA112), DA107 (DA106, DA105, and DA104) and RA120 (RA119, RA118, and RA117). This is because the buffer IC operates between ground and + 5 V, while the next stage IC, gate driver (ICA101 to ICA 104), operates between the negative power source and + 9 V.
The shift quantity is output with amplitude of 5 V, based on the voltage raised by DA108 and DA109 from the bottom by approx. 2 V.

Output of gate driver

The level-shifted signals are input to the gate driver IC (HIP2100).
Since the final stage FET array is H bridge, two gate drivers are used for 1 CH.
At this time, + and - of differential signals are input by crossing diagonally for the two gate drivers.
(Positive output to ICA101 (ICA103) Hin and ICA102 (ICA104) Lin, and negative output to ICA102 (ICA104) Hin and ICA101 (ICA103) Lin.)
Output of the gate driver drives the gate of FET array connected to H bridge.
FET consists of the lower stage where source is connected to the negative power and the upper stage where drain is connected to the positive power. Lout and Hout are connected to the gate, respectively.
The lower stage FET is driven with 9 V amplitude based on the negative power because the reference voltage is same as in the gate driver. The upper stage FET does not operate as it is because it is based on the positive power. Therefore this gate drive IC (HIP2100) makes up bootstrap, by feeding back from FET output.
As a result, amplitude of Hout is approx. + 6V of the positive power, based on the negative power.

Low-pass filter circuit

1-bit signals switched at FET are converted into analog signals via the low-pass filter consisting of LA100 (LA102, LA104, and LA106) and CA142 (CA143, CA150, and CA151).
Property of the low-pass filter is flat up to 20 kHz and then is attenuated by approx. 3 dB at around 30 kHz.

Dynamic feedback circuit

1-bit signals switched at FET of output stage are amplified between the positive and negative power sources.
With resistance divided, 1-bit signals are fed back to AD conversion IC, via NF resistance 75 kohms.
P-P voltage, which becomes approx. 4 to 7V, is determined by the regulation property of the transformer depending on the output level.

TO CHECK AND CANCEL PROTECT CIRCUIT DETECTION LINE

1. After power supply, the microcomputer (ICD01) built in this model consecutively monitors the following errors ① to ④. If any error occurs, 'Er_AP00' is displayed and all power supply except for the one to drive the microcomputer is interrupted.
   ① Abnormal output voltage drop of each regulator (below approx. 3 V)
   ② Excessive output offset of 1-bit amplifier (over approx. 2 V of DC potential)
   ③ Excessive main supply current of 1-bit amplifier (over DC approx. 5.5 A)
   ④ Abnormalities of cooling fan motor and its driving circuit (stop, etc.)

2. Criteria for judging errors of built-in microcomputer and checking/cancelling detection line
   Condition: The voltage of microcomputer pin 7 (PROTECT) lowering below 3.5 V is regarded as an error.
   (In the demonstration mode to stop cooling fan, the voltage of 1.5 V is regarded as an error.)

Checking/Cancelling

Caution: When interrupting the PROTECT detection line, the microcomputer does not operate protectively. In case of an error caused by output short-circuit of each regulator, components and board on the spot may be burnt. Do not interrupt the PROTECT detection line of the microcomputer, if any cause other than the above mentioned is not identified.
(For approx. 0.5 seconds after error detection, power is supplied; power supply can be checked with an oscilloscope, etc. As leading and trailing edges of the voltage are so steep that the power supply cannot be checked by the tester.)

① Abnormal output voltage drop of each regulator

Connect the measuring apparatus (oscilloscope, etc.) to the stabilized output of the regulator to turn on the unit power switch. If the stabilized output is far smaller (below approx. 3 V) than that shown in the circuit diagram, the regulator and the circuit to be supplied with the power may be defective.

② Excessive output offset of 1-bit amplifier

After disconnecting the CNPV99 (speaker output connector of 1-bit amplifier), turn on the unit power for the normal operation. (No sound is heard from the speaker.)

* After repairing, adjust the output offset voltage of 1-bit amplifier as shown on page 31.
  If the protective operation is observed even after disconnecting the CNPV99, circuits QV95 to 98 (DC voltage detection of speaker output) may be defective.

③ Excessive main supply current of 1-bit amplifier

After disconnecting the CNP801 (main power source connector of 1-bit amplifier), turn on the unit power for the normal operation. (No sound is heard from the speaker.)

* After repairing, adjust the output offset voltage of 1-bit amplifier as shown in page 31.
  If the protective operation is observed even after disconnecting the CNP801, the circuit of ICV98/ICV99 (supply current detection circuit) may be defective.

④ Abnormalities of cooling fan motor and its driving circuit (stop, etc.)

Turn on the unit to visually inspect the cooling fan motor till the protective operation starts.

* If the fan is rotating forcefully;
  QV94, contact of the CNPV97 (connector for fan motor), or fan may be defective. (CNPV97 pin 3 potential during normal fan operation is approx. 0 V.)

* When the fan is not rotating or seems to be stopping.
  If it is checked that the CNPV97 (connector for fan motor) is not defective and it is also checked by oscilloscope, etc that voltage of pin 1 (red line of fan) is approx. 6 V, the fan may be defective.

  When the voltage of the CNPV97 pin (1) is far lower than 6 V, and base voltage of QV93 is almost the same as that shown in the circuit diagram, the fan or the circuit consisting of PSV801, QV85, QV87, and QV93 may be defective.

  When the base voltage of QV85 is 0 V or extremely lower than the value shown in the circuit diagram (3.5 V), the system control terminal of SOV90 may be defective.

TEST MODE

From power off state to TEST mode

Press the +10 Track Up button (+10) and MD REC LEVEL/MD Fast Forward button (▶▶|) simultaneously while the POWER button of the main unit is on to obtain the TEST mode. Initially, the version is displayed.
Thereafter press the MD REC LEVEL/MD Fast Forward button (▶▶|) to select the TEST mode and then press the +10 Track Up button (+10) to determine it.
Press the DIRECT key during version display to obtain the designated TEST mode directly.

TEST MODE

No.	TEST MODE	DIRECT KEY	DISPLAY
1	CD TEST	CD PLAY (CD ▶ ▮▮)	CD MENU
2	MD TEST	MD PLAY (MD ▶ ▮▮)	MD MENU
*3	MD DISP TEST	ERASE	MD DIS MENU
*4	REC AGING	MD REC (● REC)	REC MENU
5	AUX TEST	AUX (DEMO)	AUX MENU
*6	CALENDAR TEST	CD STOP (CD ■)	DATE MENU
7	KEY TEST	VOLUME UP (VOLUME ∧)	KEY MENU
8	TUNER TEST	TUNER/BAND	TUN MENU
*9	LINE TEST	MD STOP (MD ■)	MD-LINE MENU

The TEST modes 3, 4, 6 and 9 marked with * are under technical examination; their descriptions are omitted.

Cancelling the TEST mode

In each TEST mode, press the POWER button to display COMPLETE for 1 second and then cancel the TEST mode.
In the MD TEST mode, press the POWER button again.

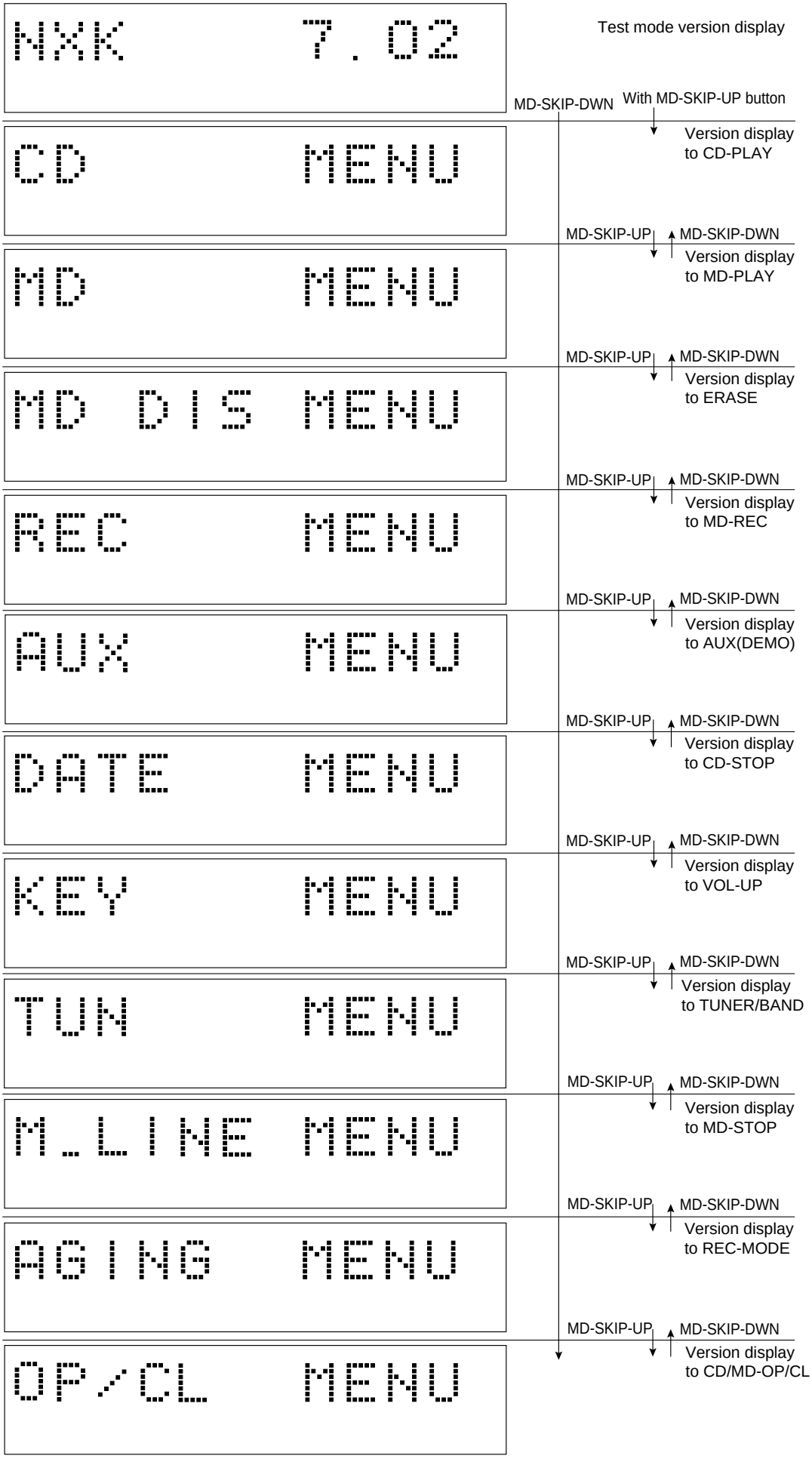
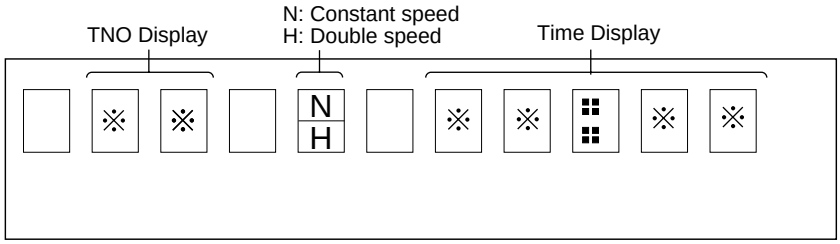

NXK 7.02
Test mode version display
MD-SKIP-DWN
With MD-SKIP-UP button
CD MENU
Version display to CD-PLAY
MD-SKIP-UP
MD-SKIP-DWN
MD MENU
Version display to MD-PLAY
MD-SKIP-UP
MD-SKIP-DWN
MD DIS MENU
Version display to ERASE
MD-SKIP-UP
MD-SKIP-DWN
REC MENU
Version display to MD-REC
MD-SKIP-UP
MD-SKIP-DWN
AUX MENU
Version display to AUX(DEMO)
MD-SKIP-UP
MD-SKIP-DWN
DATE MENU
Version display to CD-STOP
MD-SKIP-UP
MD-SKIP-DWN
KEY MENU
Version display to VOL-UP
MD-SKIP-UP
MD-SKIP-DWN
TUN MENU
Version display to TUNER/BAND
MD-SKIP-UP
MD-SKIP-DWN
M_LINE MENU
Version display to MD-STOP
MD-SKIP-UP
MD-SKIP-DWN
AGING MENU
Version display to REC-MODE
MD-SKIP-UP
MD-SKIP-DWN
OP/CL MENU
Version display to CD/MD-OP/CL

Figure 38

1. CD test

Outline: Read-out of the set value after automatic adjustment (for judging difference from initial value)
Forced operation of pickup (Inner/Outer circumference feed)
During the PLAY mode, the number of errors accumulated for 10 seconds (750 frames) is displayed.

Basic CD operation by CD-PLAY button
During the TEST mode, the display is turned on and the following buttons become effective.



Operation

1. CD-PLAY: CD operation according to steps
   STEP 1: LD ON by pressing CD PLAY button in the stop mode
   STEP 2: Focus ON by pressing CD PLAY button in STEP 1
   STEP 3: CLV servo ON by pressing CD PLAY button in STEP 2
   STEP 4: Tracking servo ON by pressing CD PLAY button in STEP 3
   STEP 5: Sub-code readout/display by pressing CD PLAY button in STEP 4
   * Keep pressing the CD PLAY button for more than 1 second to shift to STEP 5 directly.
2. CD STOP : To stop the playback operation (shifting from each step to the stop mode) / To reset display (during display of coefficient)
3. CD SKIP-UP (TUNING ∧ / ▶▶|) : Forcible shift in the pickup FWD direction
4. CD SKIP-DOWN (TUNING ∨ / |◀◀) : Forcible shift in the pickup REV direction Sliding is stopped when the PU_IN switch is turned on.
5. MD-STOP : Automatic adjustment (at the present pickup position)
6. POWER : Canceling the test mode
7. REC MODE : To read the coefficient register while the CD operation is stopped/ To display the error number during CD playback
8. VOLUME UP/DOWN : Normal volume control
9. CD/MD OPEN/CLOSE : Normal open/close operation
10. CD EJECT : Normal CD eject

Readout of the adjusted value

Press the REC-MODE button during the stop mode to read the following items.
Press the C-STOP button to return to the normal display.

Item	Display	Max	Type	Min
Focus balance	_ _ F B : ××	7 F	0 0	8 0
Focus gain	_ _ F G : ××	1 F	0 0	E 0
Tracking balance	_ _ T B : ××	7 F	0 0	8 0
Tracking gain	_ _ T G : ××	1 F	0 0	E 0
Focus offset	F O F F : ××	7 F	0 0	8 0
Tracking offset	T O F F : ××	7 F	0 0	8 0
RFRP	R F R P : ××	7 F	0 0	8 0

Even if the CD-PLAY button is pressed initially, automatic adjustment is not obtained. Press the MD-STOP button in the stop mode to gain CD-PLAY for automatic adjustment. Thereafter press the CD-STOP button to stop automatic adjustment. Press the REC-MODE button to display automatically adjusted values.

Readout of error numbers

Press the REC-MODE button during playback to display the number of errors accumulated for 10 seconds (750 frames).
Press the REC-MODE button during ERR display to return to the normal TEST mode display.

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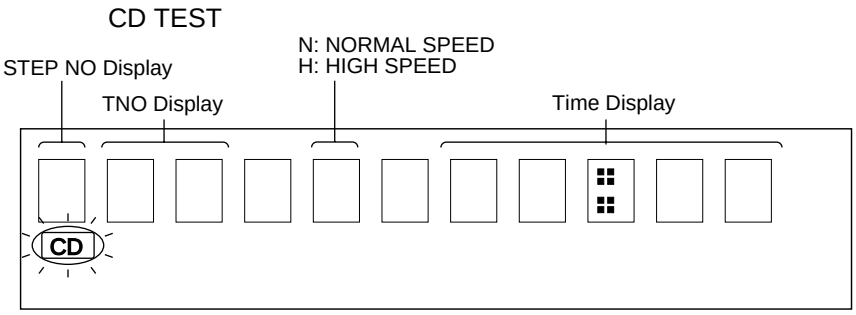
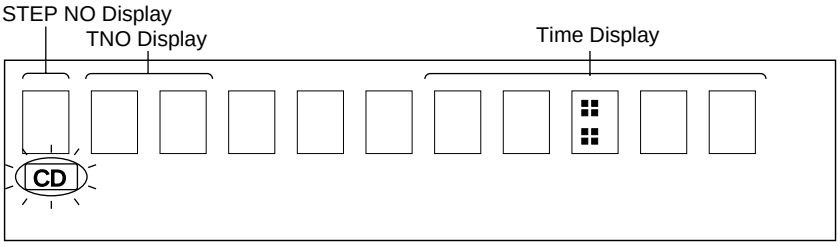
Double-speed mode

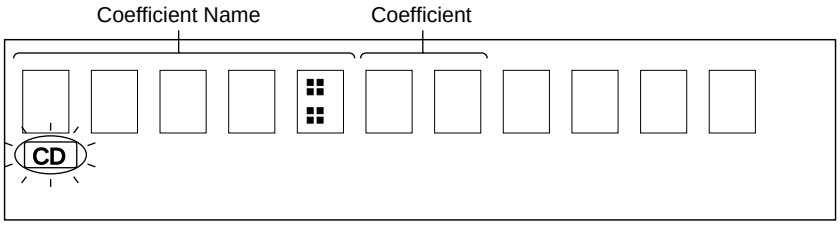
Press the MD-REC button in the stop mode to switch to the double/constant-speed mode cyclically.
During the double-speed mode, a flag mark lights up.



[CD] Flickering



1. STEP No.: 0 when stopped
2. Time display: Blank from the stop mode to STEP 4



Readout of coefficient

2. MD test mode (Refer to page 23 and after.)

Button used during MD test mode

Button Name	Function
CD PLAY	To feed the menu of the TEST mode (1) (to feed the menu relating to adjustment and EEPROM)
TUNER/BAND	To feed the menu of the TEST mode (2) (to feed the menu mainly relating to continuous playback and recording)
AUX/DEMO	To feed the menu of the TEST mode (3) (to feed the menu of INNER and JUMP SELECT, etc.)
MD REC	To feed the menu of the TEST mode in reverse (to feed the menu in each test mode in reverse)
MD PLAY	To select, determine and start the menu
MD STOP	To stop each test item and to select the next upper menu
MD SKIP-UP (▶▶|)	1. Forced slide feeding (FWD) 2. JUMP operation 3. Address setting value up, etc.
MD SKIP-DOWN (|◀◀)	1. Forced slide feeding (REV) 2. JUMP operation 3. Address setting value down, etc.
VOLUME UP	1. Forced UNLOAD of DISC 2. Set value UP
VOLUME DOWN	1. Forced LOAD of DISC 2. Set value DOWN
CD STOP	1. To switch laser by EJECT 2. To switch display during continuous playback, etc.
POWER	To operation mode without automatic adjustment
MD EJECT	Normal EJECT operation

5. AUX test mode

Outline: To test the AUX operation

Operation

a. Press the VOL-UP/DOWN button.
MIN (0) ←→ 1 ←→ 250 ←→ MAX (40)
(The volume can be switched among 4 levels.)
b. Switching of the graphic equalizer and switching test for X-BASS ON/OFF and SURROUND ON/OFF are possible.
c. Press the POWER button to exit the AUX test mode.

7. KEY test

Outline: To check if KEY data are input to the microcomputer accurately

Operation

All lights of segments on FL go off while the keys are not effective.
Segments corresponding to the keys are lit up as shown below.
The power button is an exception; 2 seconds after all lights are lit, the TEST mode is cancelled.

KEY	Segment
POWER	TEST mode canceled 2 seconds after all lights are lit
VOLUME UP	kHz
VOLUME DOWM	MHz
TUNER/BAND	[FM]
AUX (DEMO)	[AUX]
ERASE	TOC
MD EJECT	AM
MD PLAY	PM
MD STOP	[MD]
MD REC	REC MARK
REC MODE	LP2
PLAY-MODE	REPEAT MARK
+10	LP4
MD SKIP-UP	REC
MD SKIP-DOWN	PLAY
CD/MD OPEN/CLOSE	RANDOM
CD EJECT	FLAG MARK
CD PLAY	PLAY MARK
CD STOP	[CD]
CD SKIP-UP (TUNING ∧ / ▶▶|)	[ST]
CD SKIP-DOWN (TUNING ∨ / |◀◀)	STEREO

8. TUNER TEST

Outline: To test the accurate operation of the tuner

The following presets are written.
a. Reception of Preset 1.
b. Press the POWER button to cancel the TEST mode. In this case, preset is entirely erased.

Preset memory in the TUNER TEST mode										
P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P10	P11
76.0	108.0	77.0	106.0	89.0	83.0	522k	1629k	603k	1404k	990k

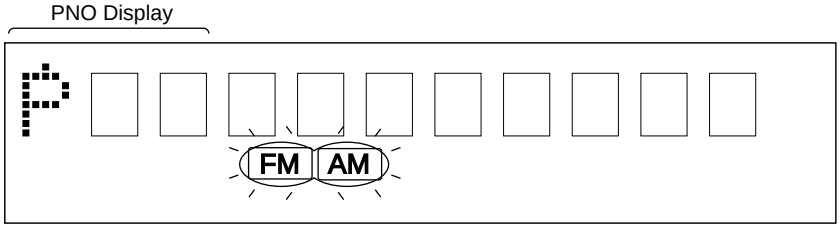
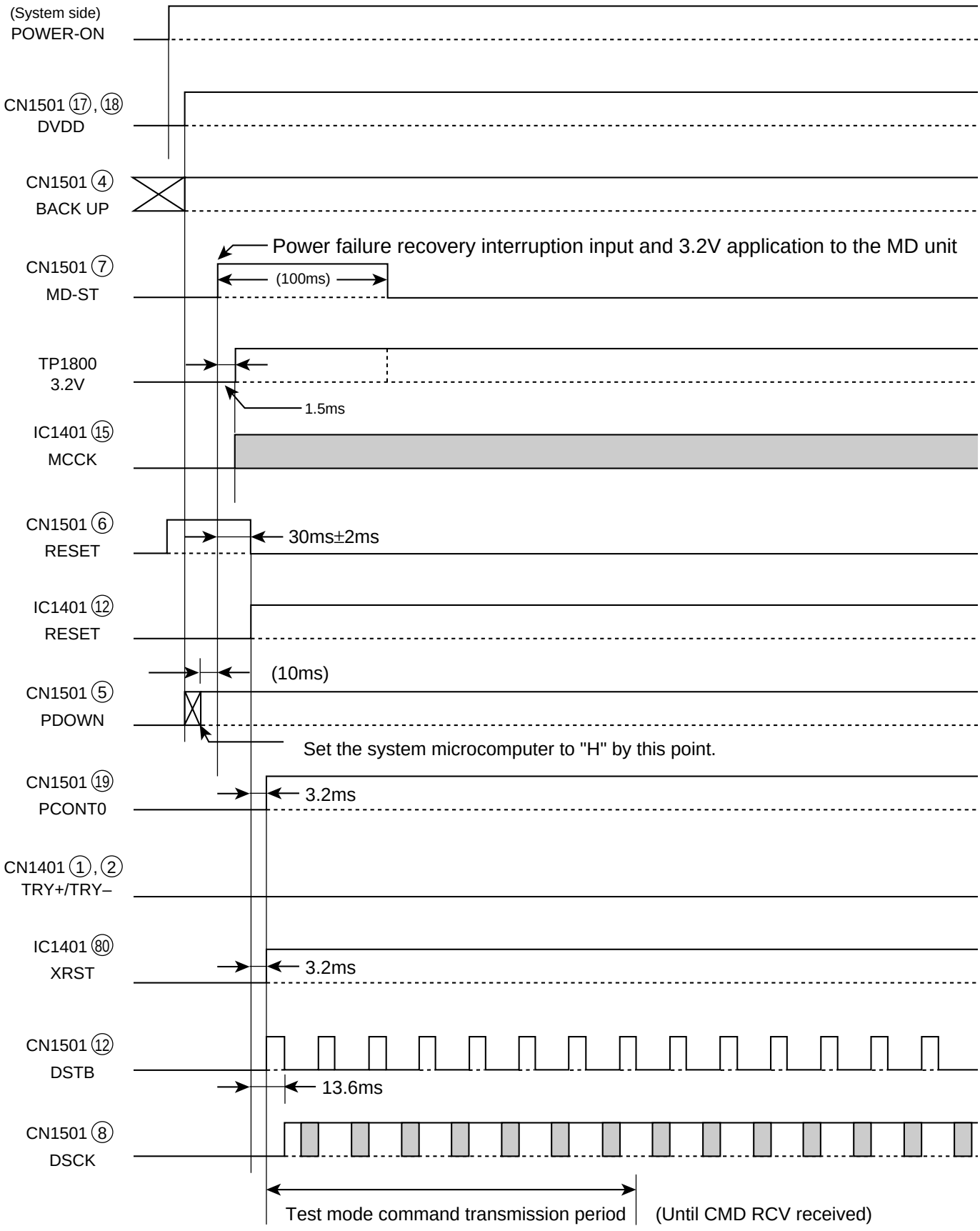


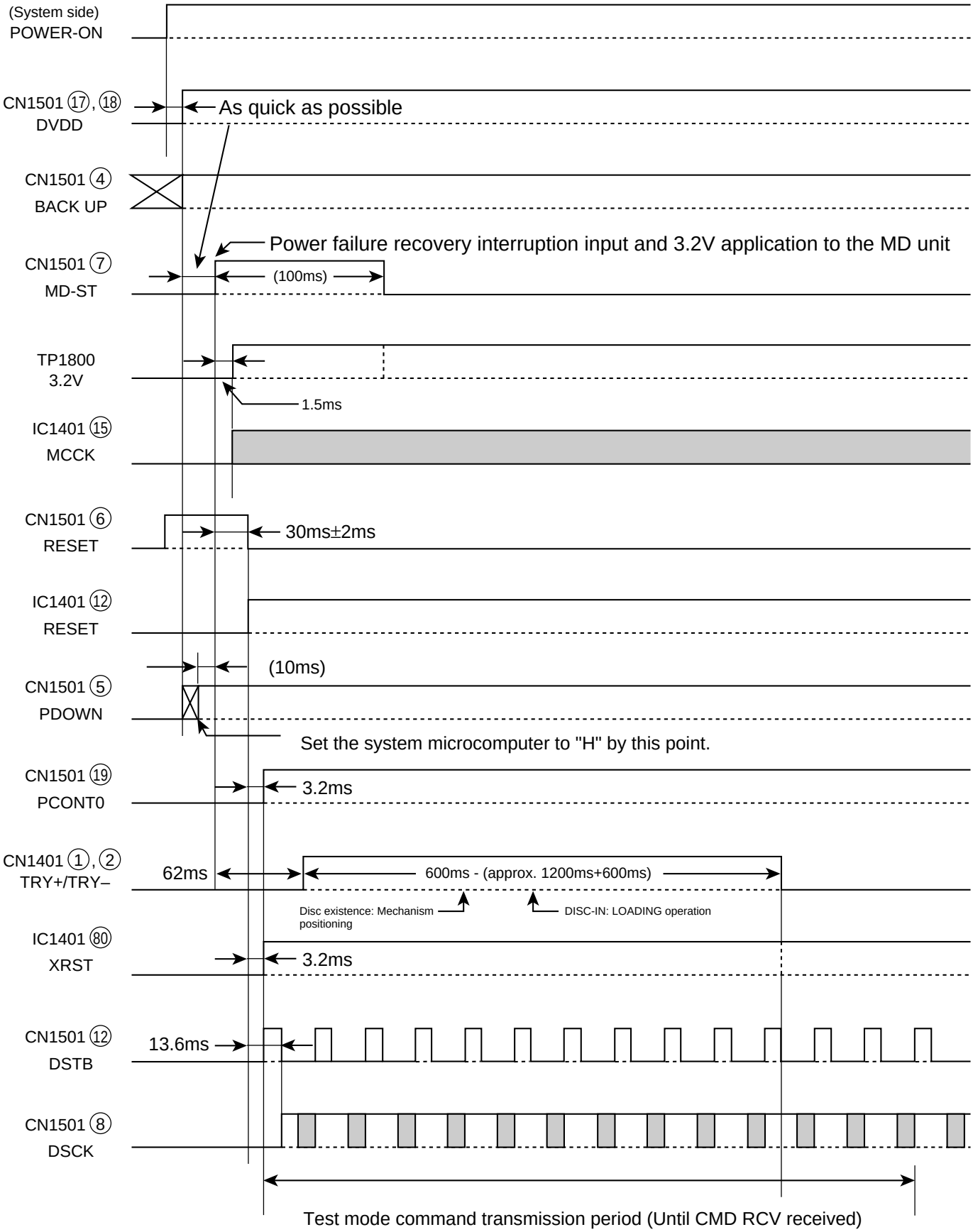
Figure 41 TEST MODE MENU

MD power ON time chart

Power-on sequence for the MD unit (when resetting or starting it ① : no disc)



Power-on sequence for the MD unit (when resetting or starting it ② : DISC IN or disc existence)



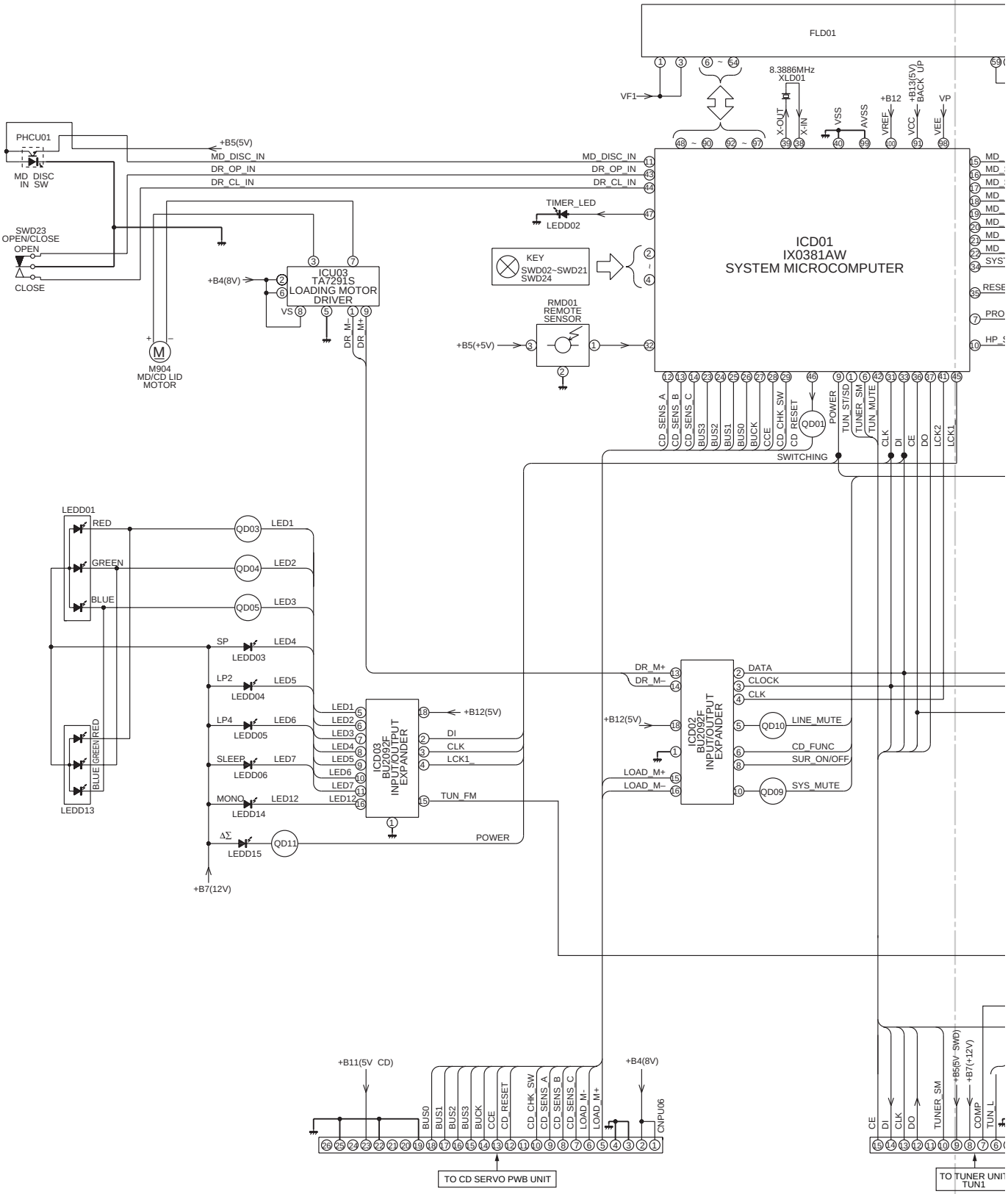


Figure 44 BLOCK DIAGRAM (1/7)

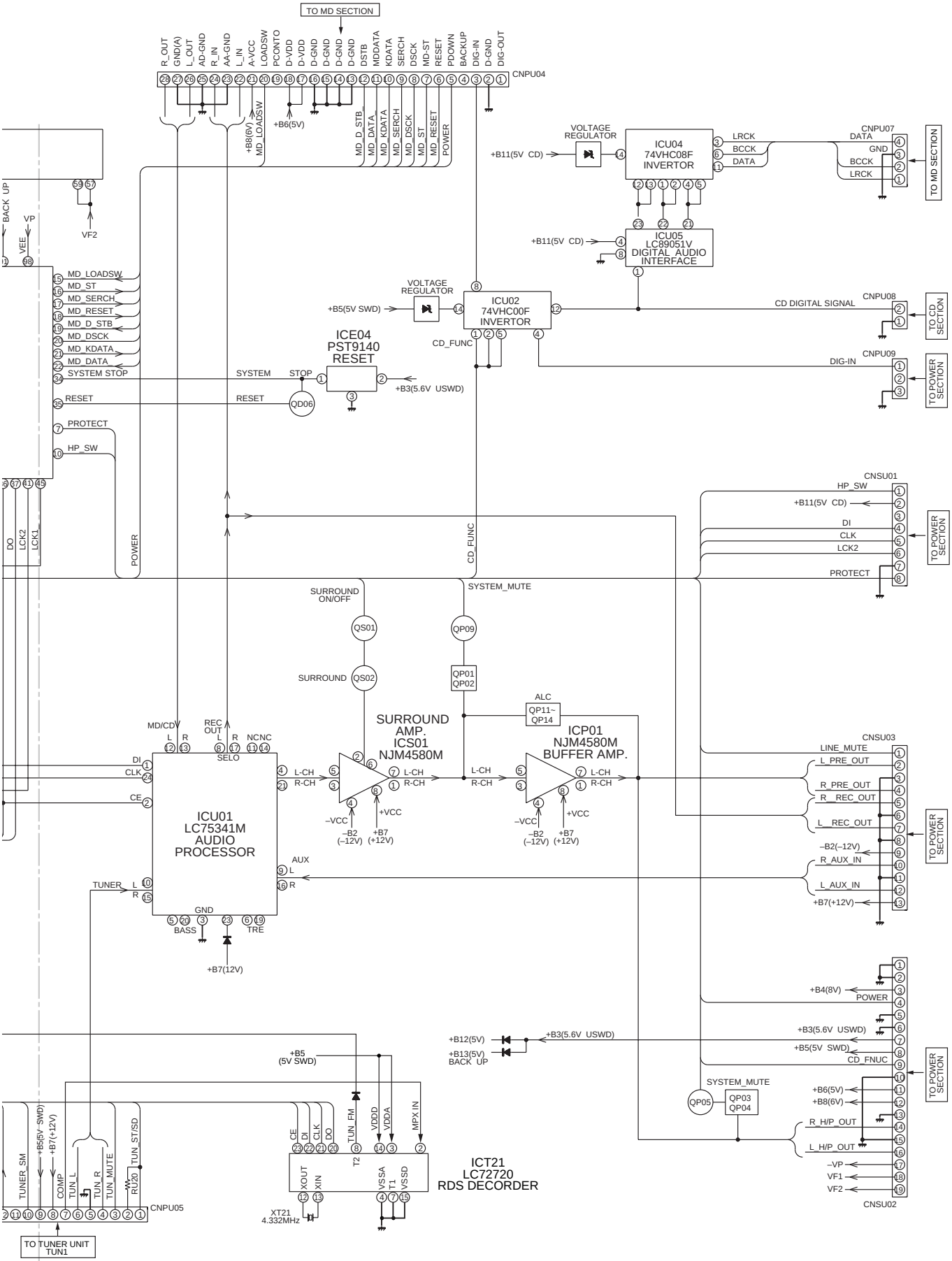


Figure 45 BLOCK DIAGRAM (2/7)

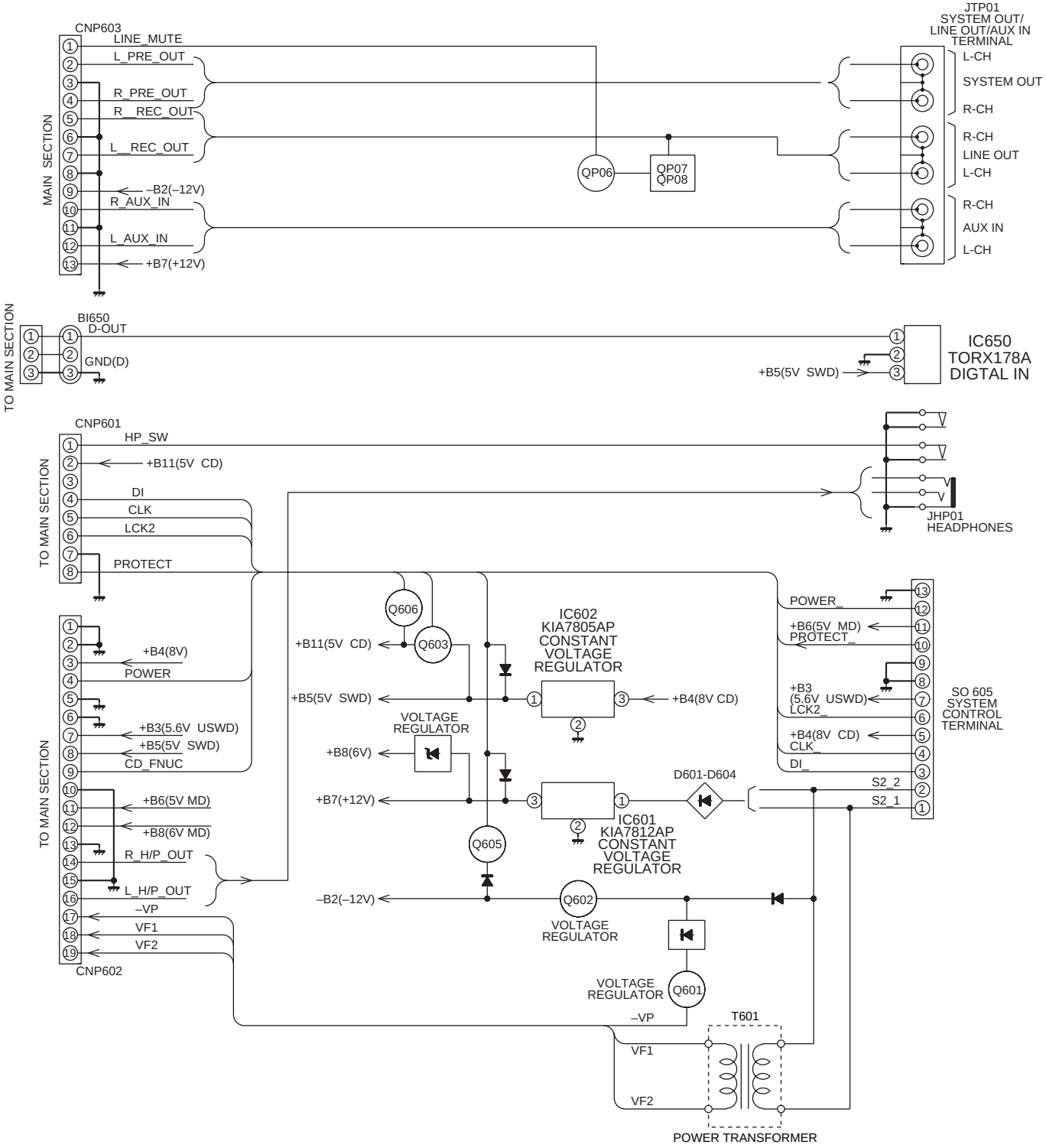


Figure 46 BLOCK DIAGRAM (3/7)

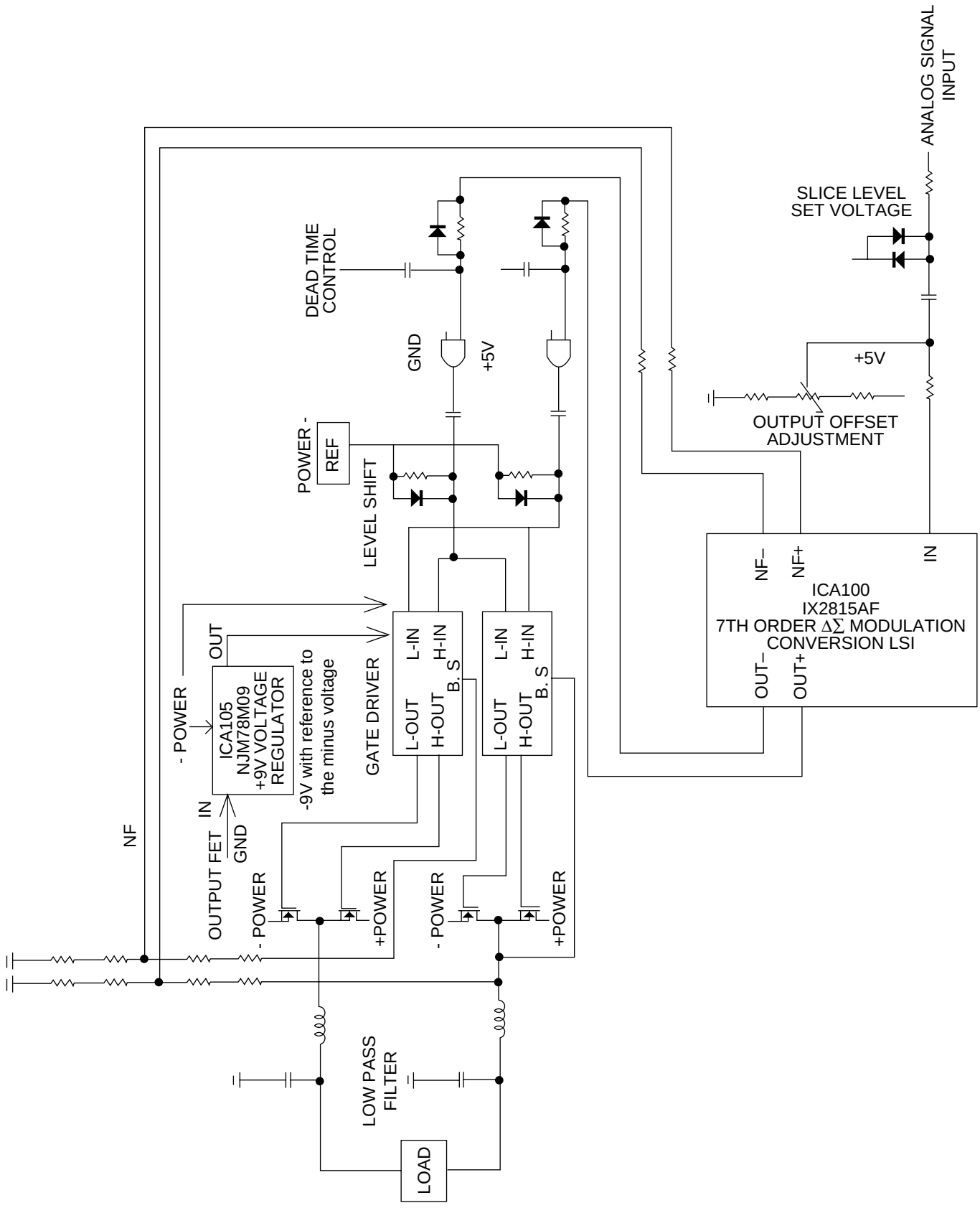


Figure 47 BLOCK DIAGRAM (4/7)

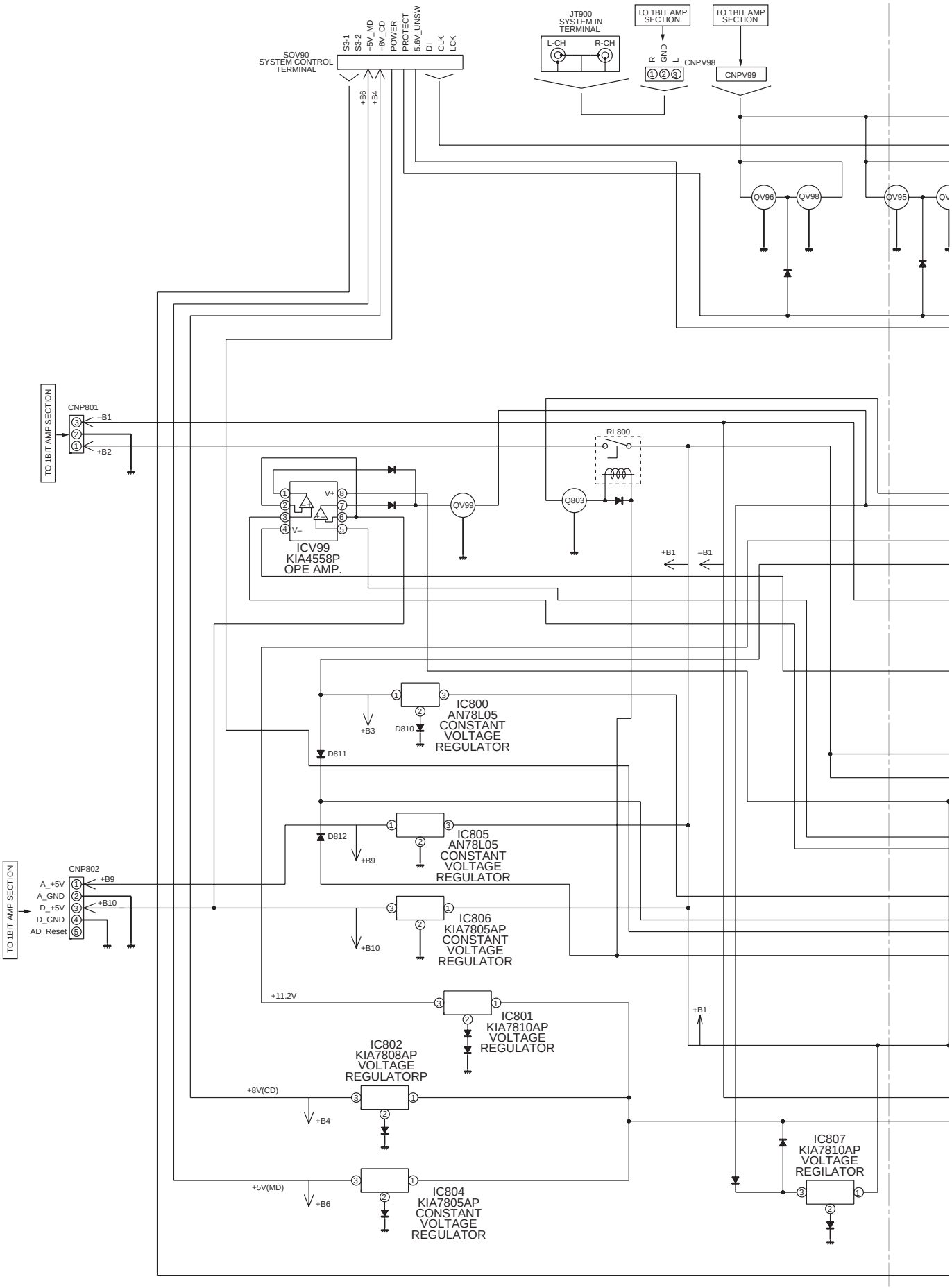


Figure 48 BLOCK DIAGRAM (5/7)

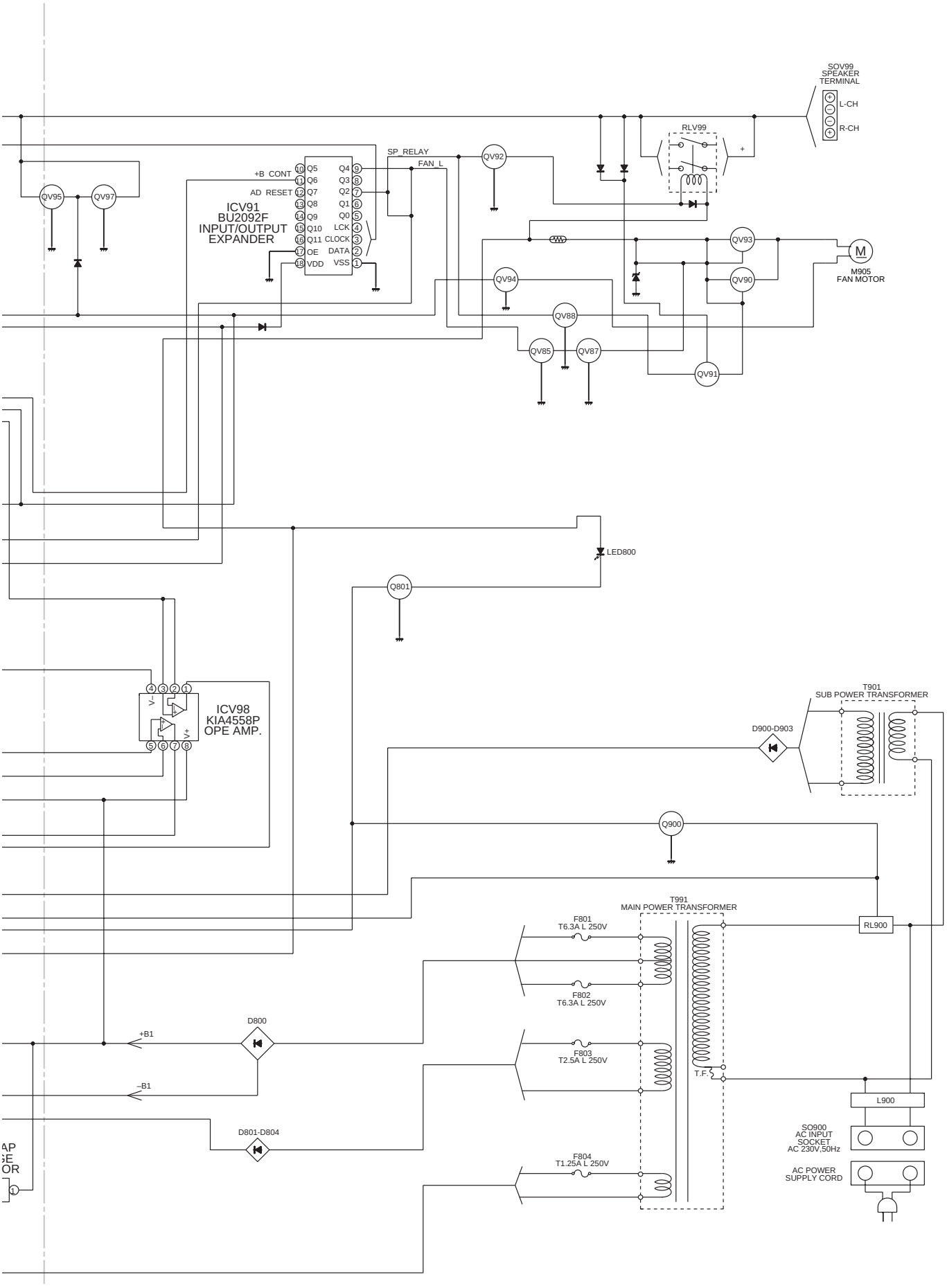


Figure 49 BLOCK DIAGRAM (6/7)

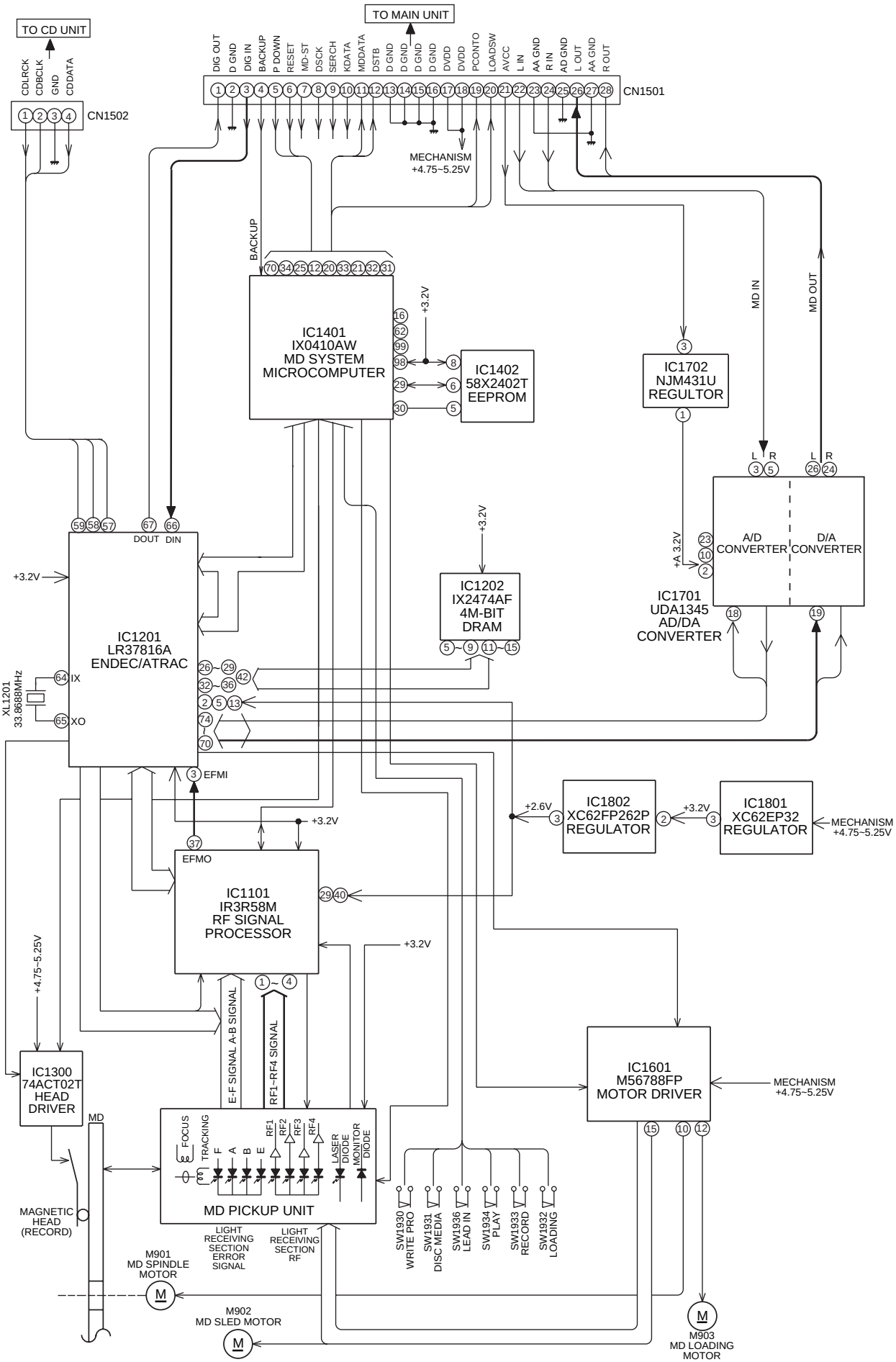


Figure 50 BLOCK DIAGRAM (7/7)

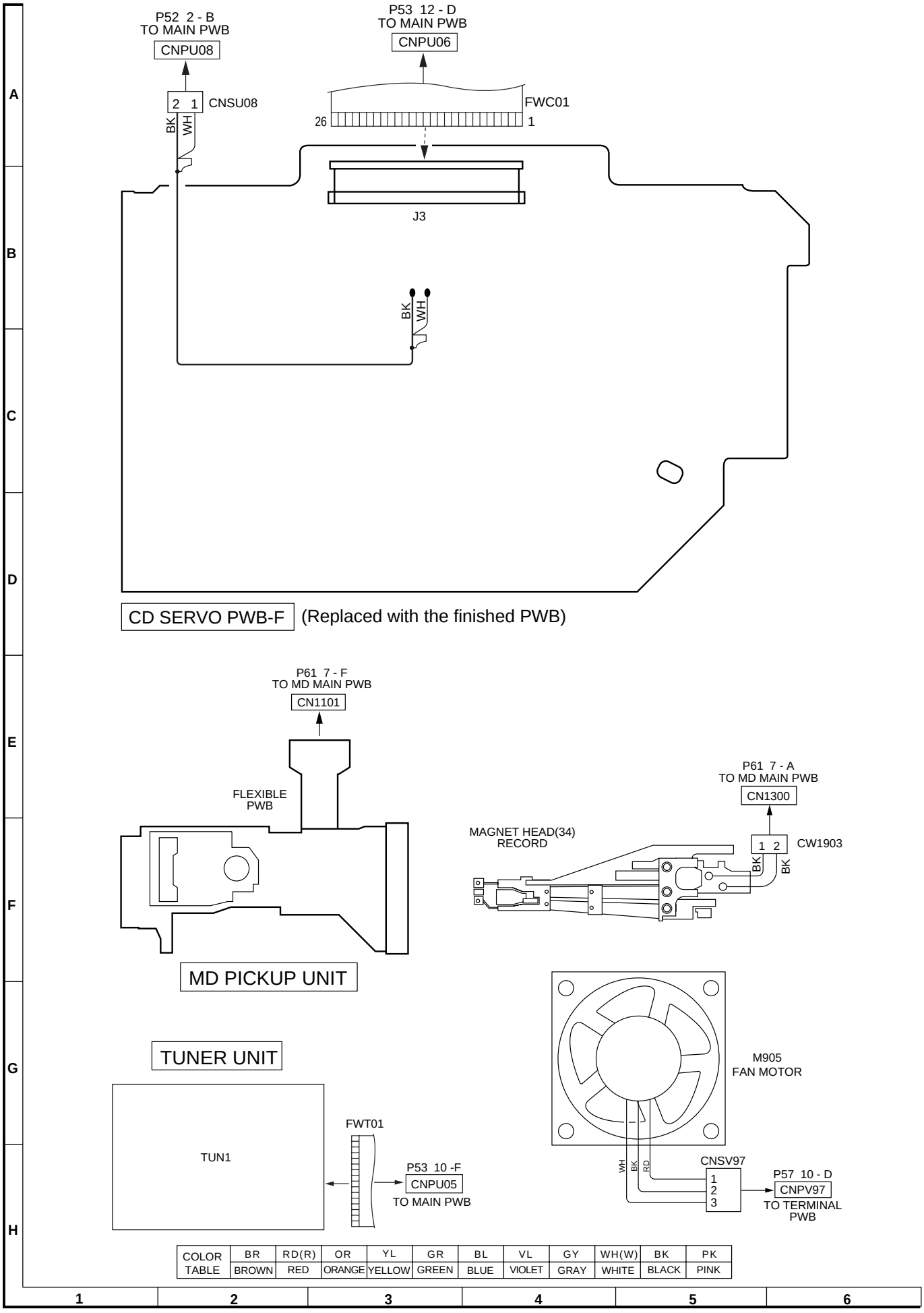


Figure 51 WIRING SIDE OF P.W.BOARD (1/11)

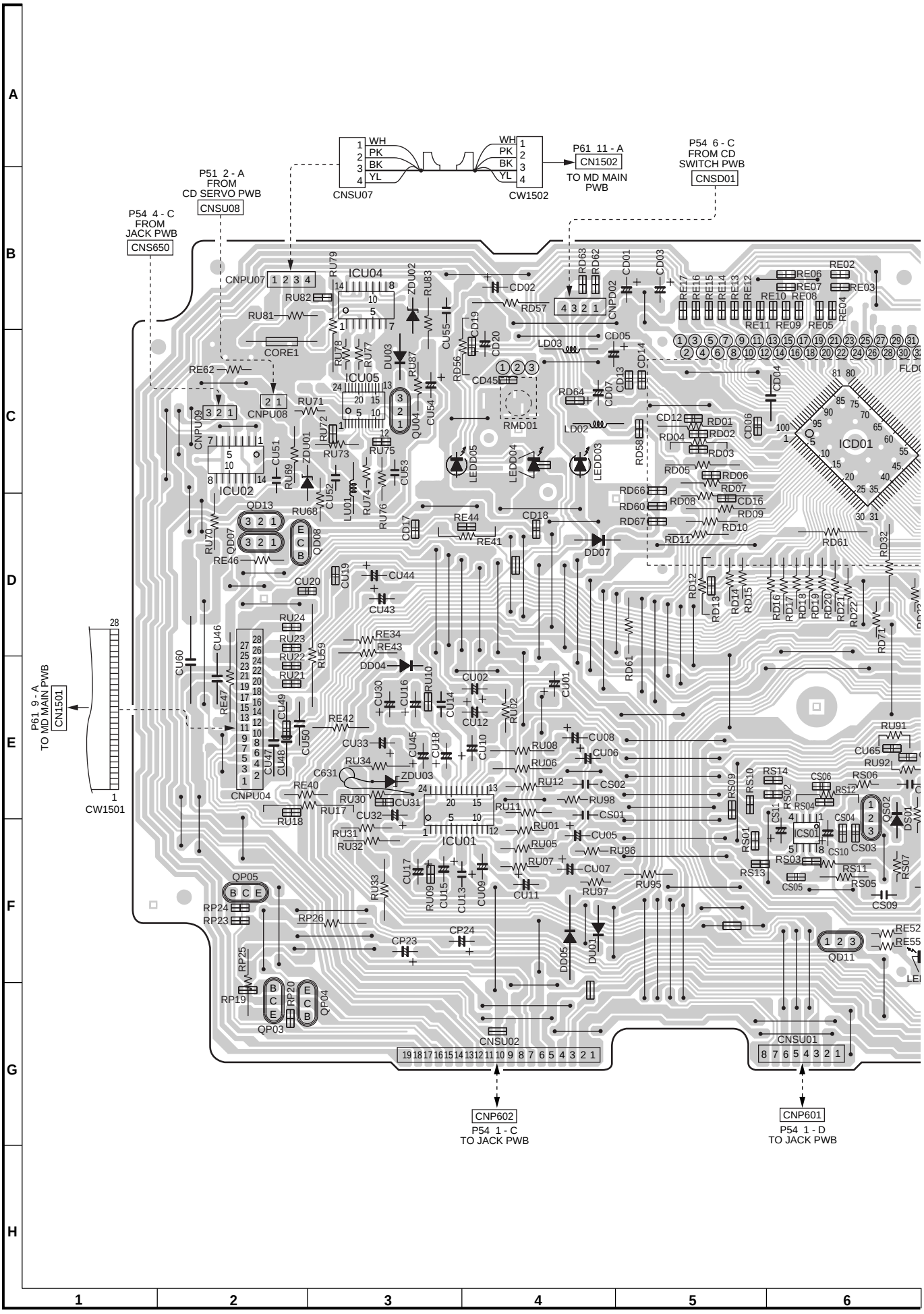
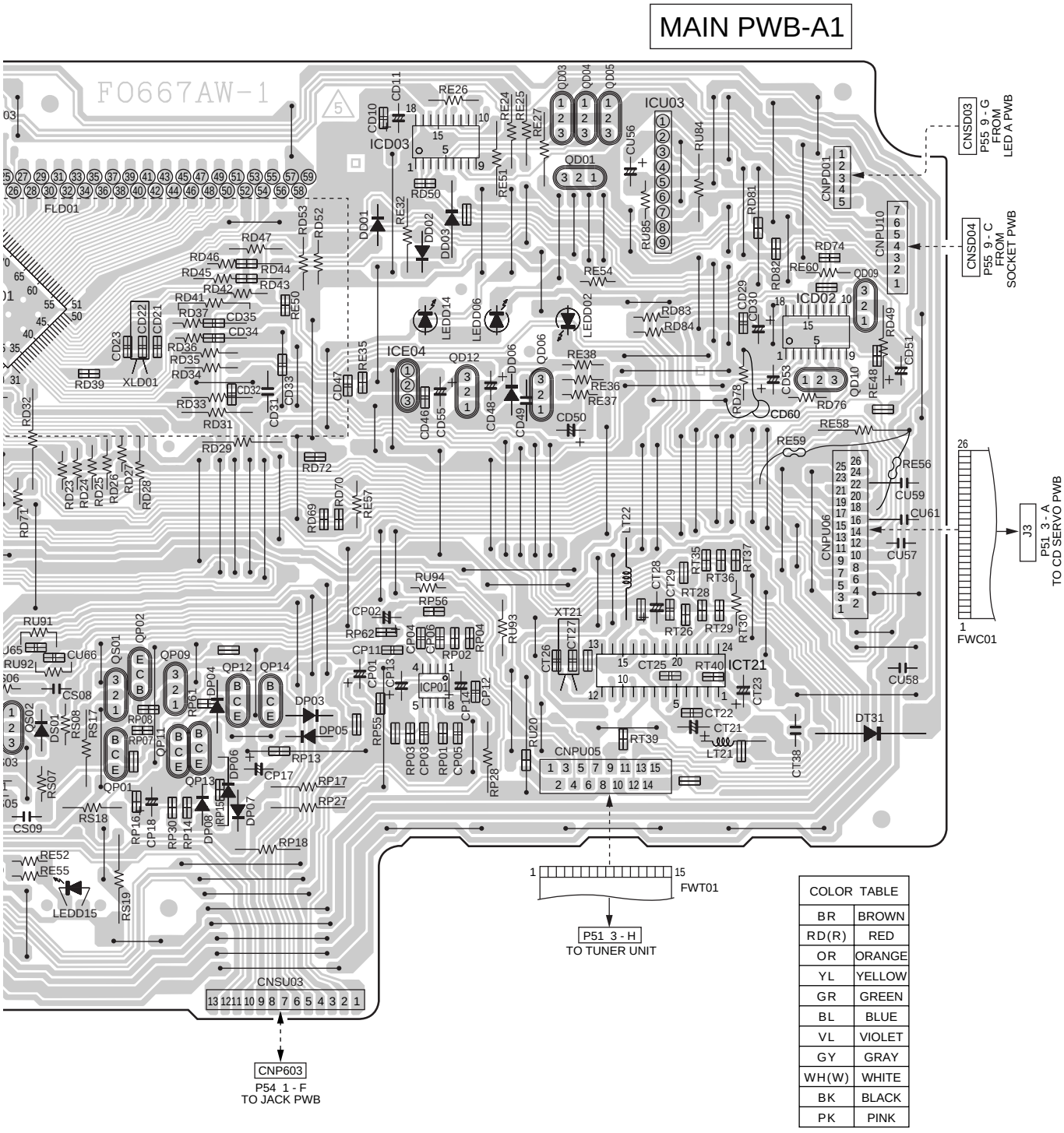


Figure 52 WIRING SIDE OF P.W.BOARD (2/11)



7	8	9	10	11	12

Figure 53 WIRING SIDE OF P.W.BOARD (3/11)

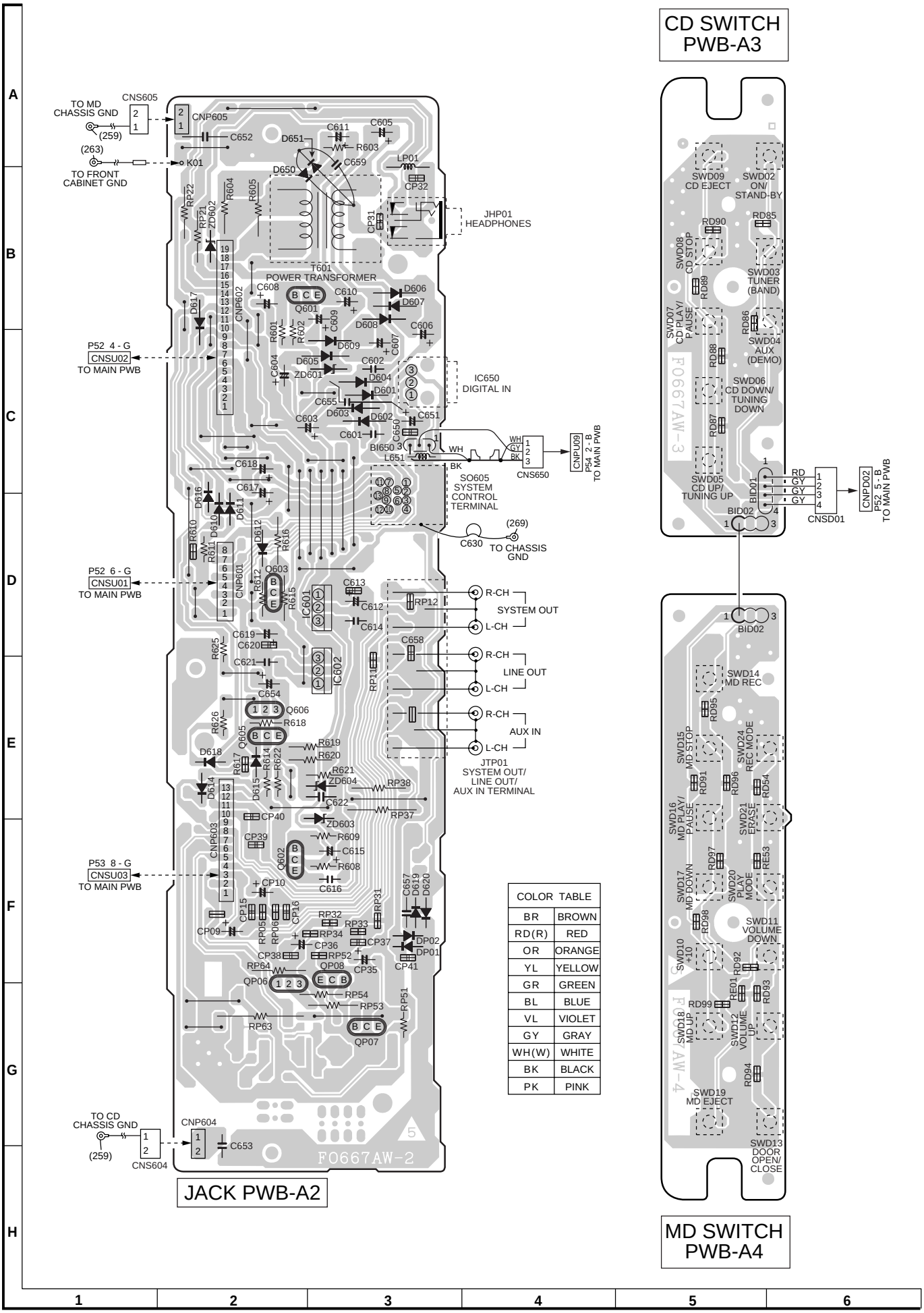
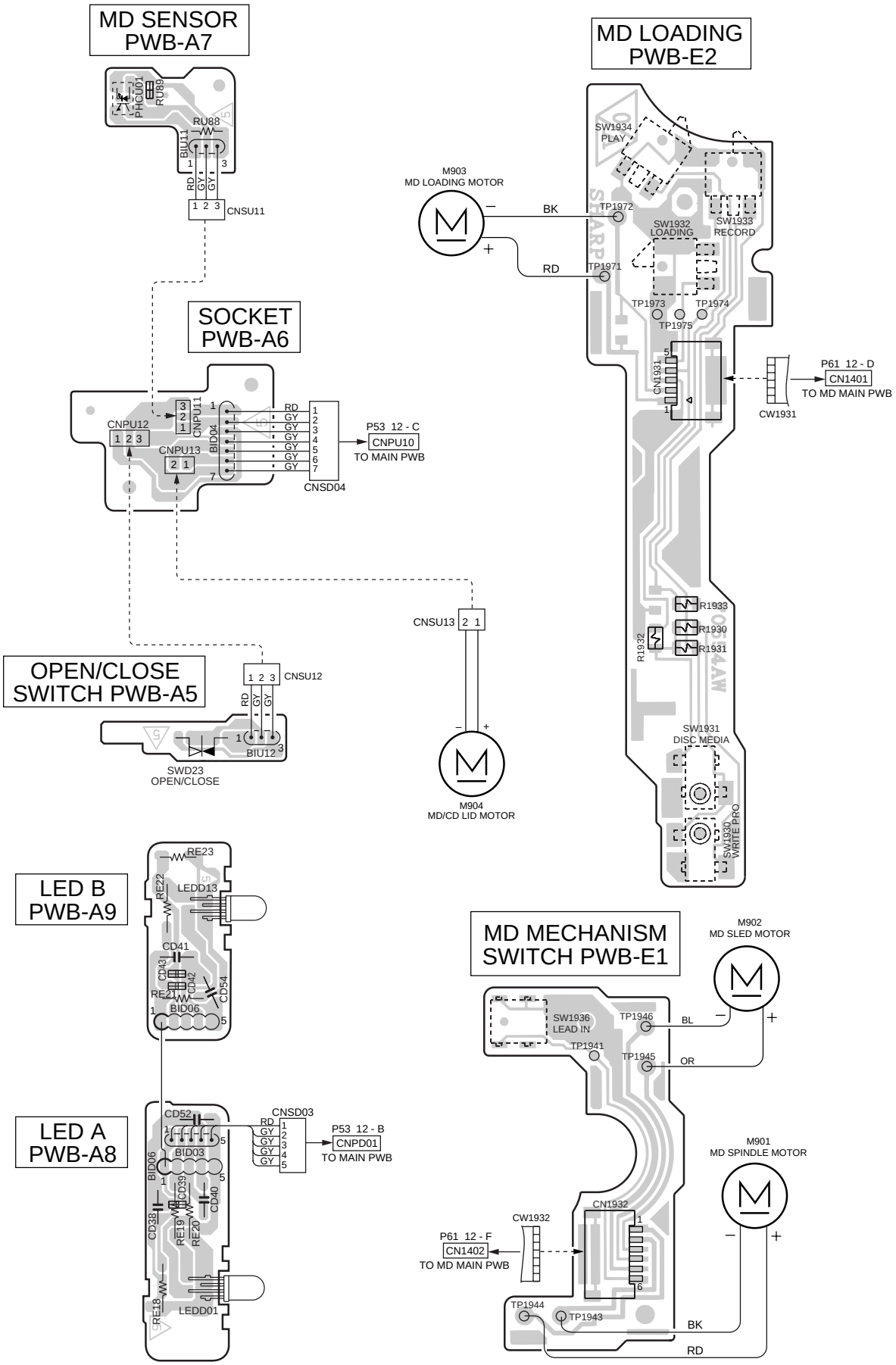


Figure 54 WIRING SIDE OF P.W.BOARD (4/11)



7	8	9	10	11	12

Figure 55 WIRING SIDE OF P.W.BOARD (5/11)

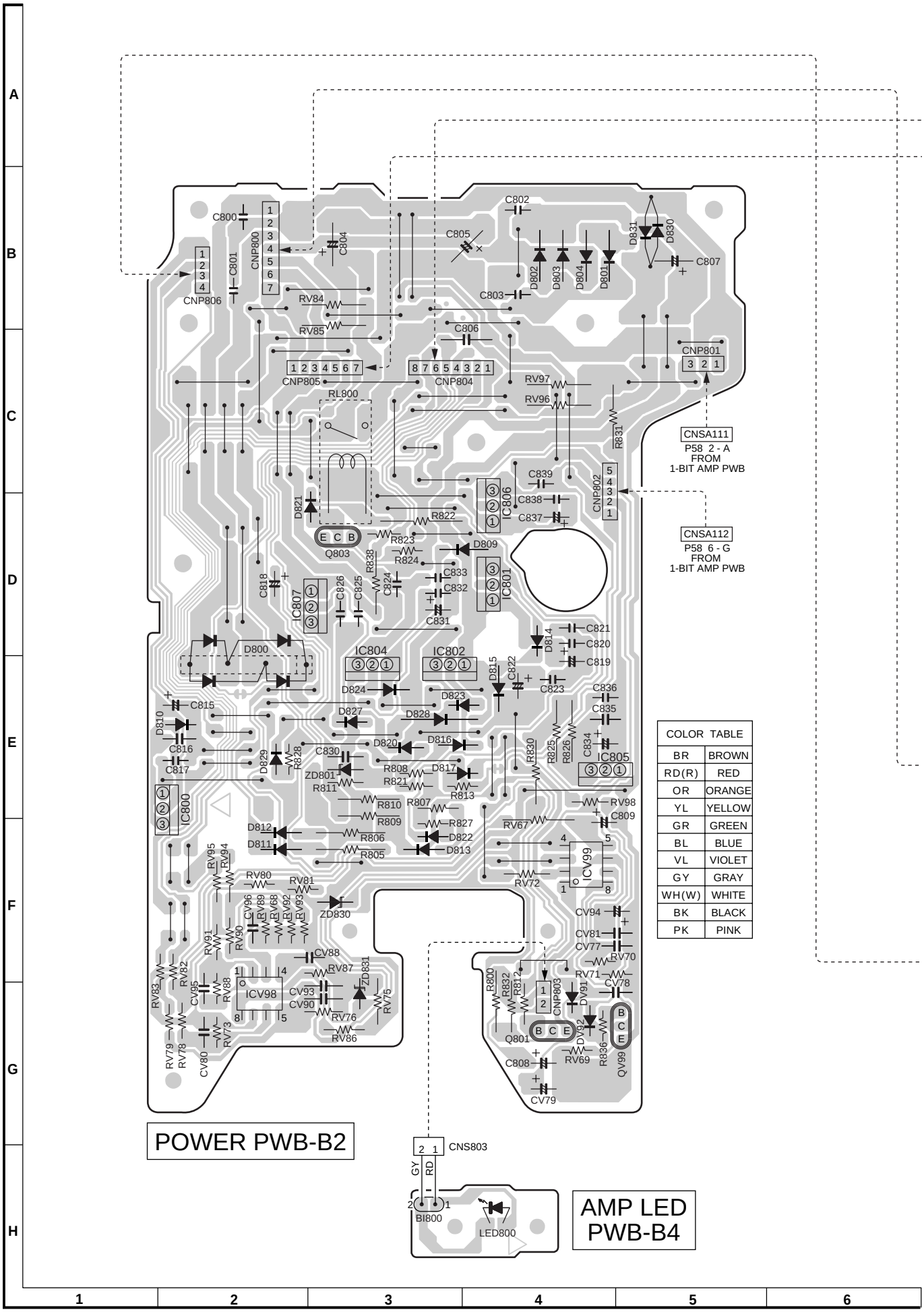
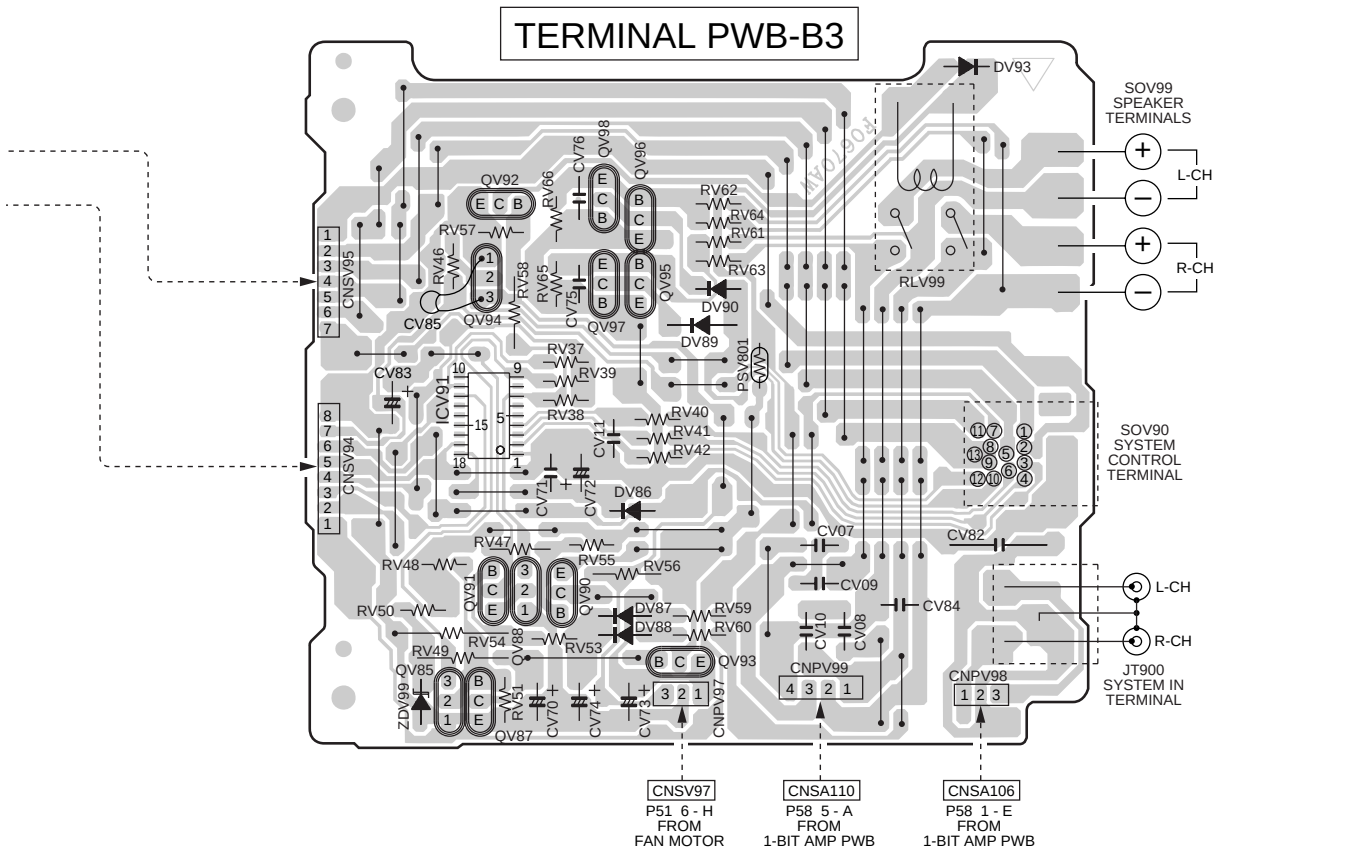
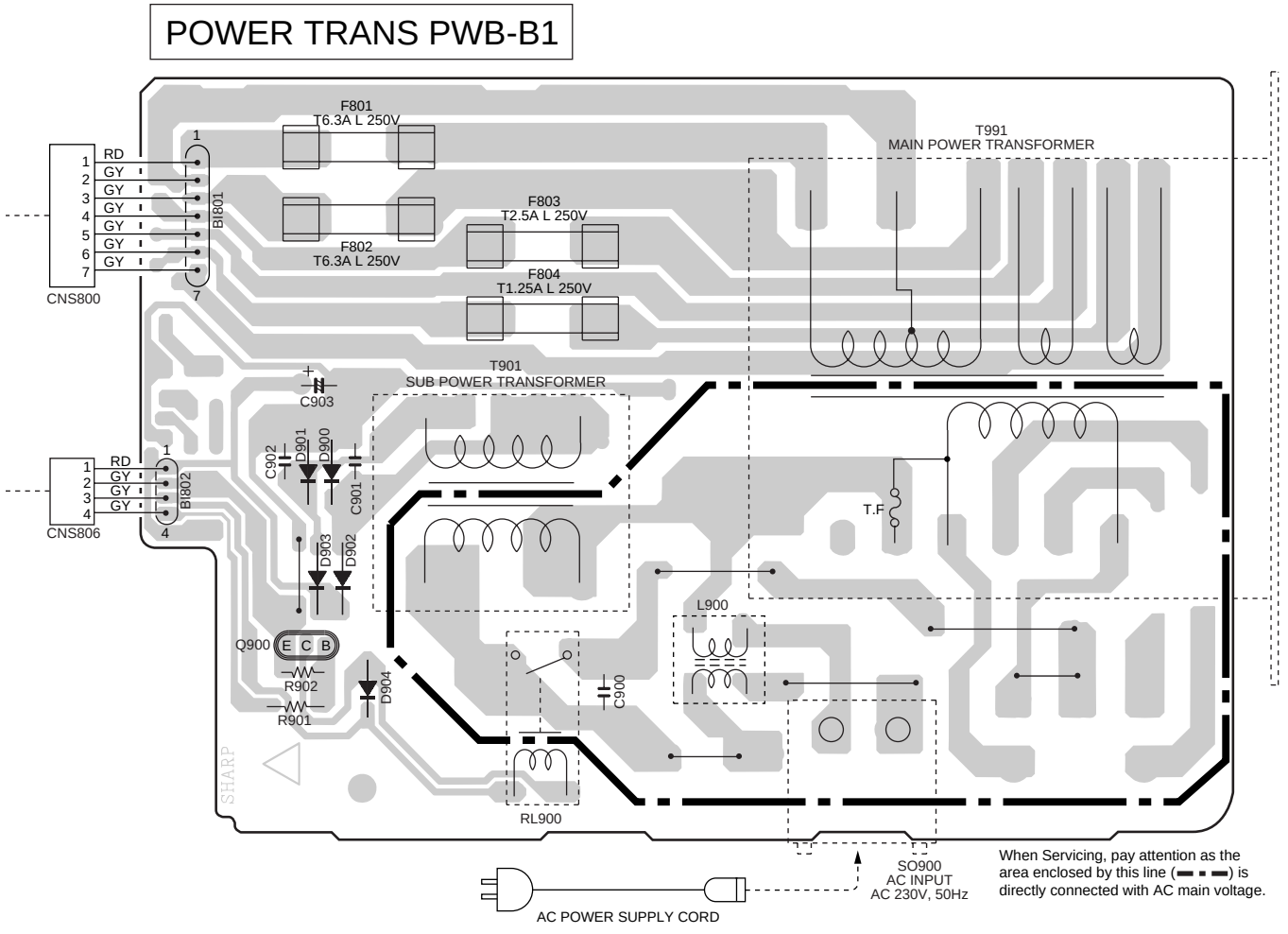


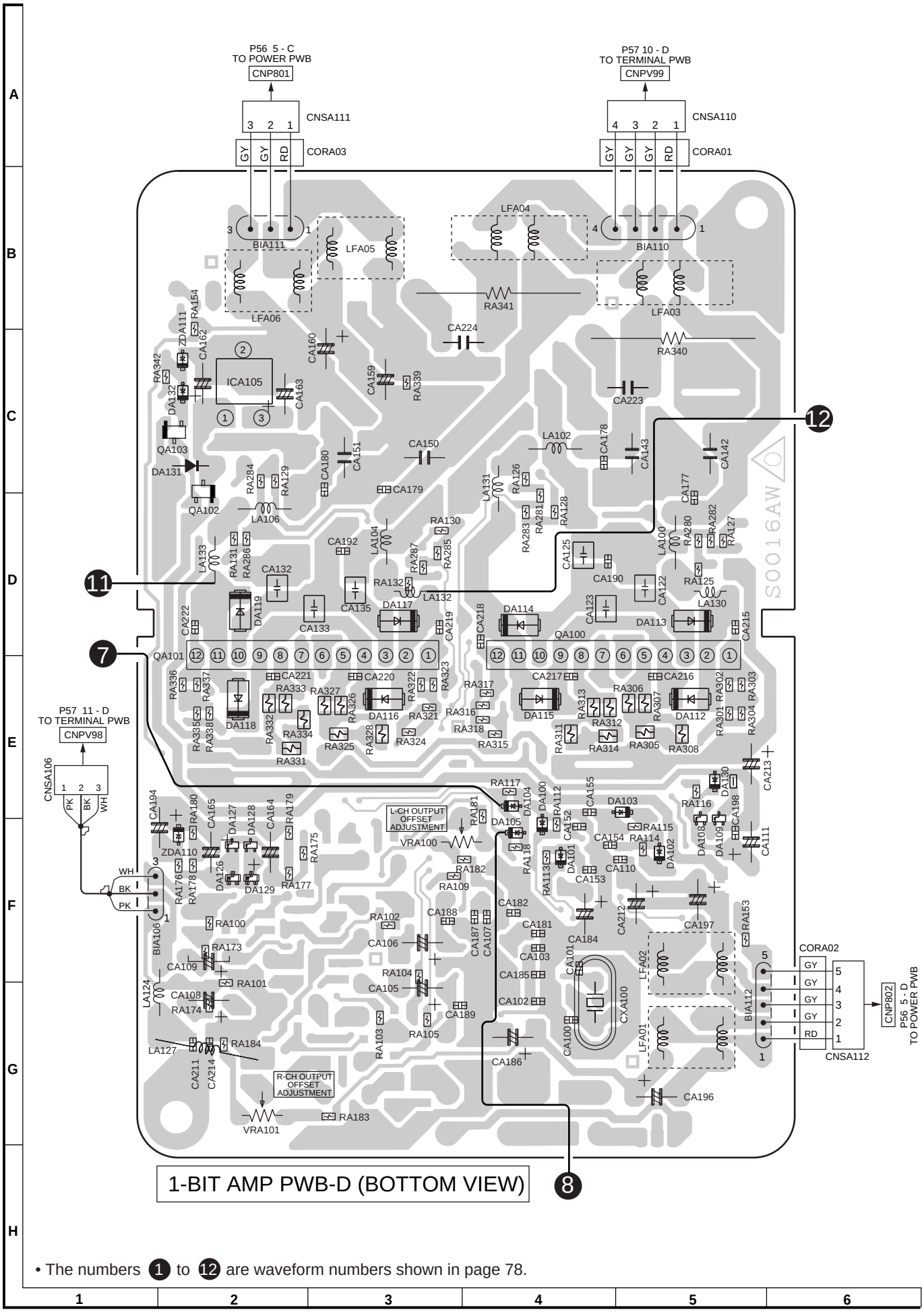
Figure 56 WIRING SIDE OF P.W.BOARD (6/11)





7	8	9	10	11	12

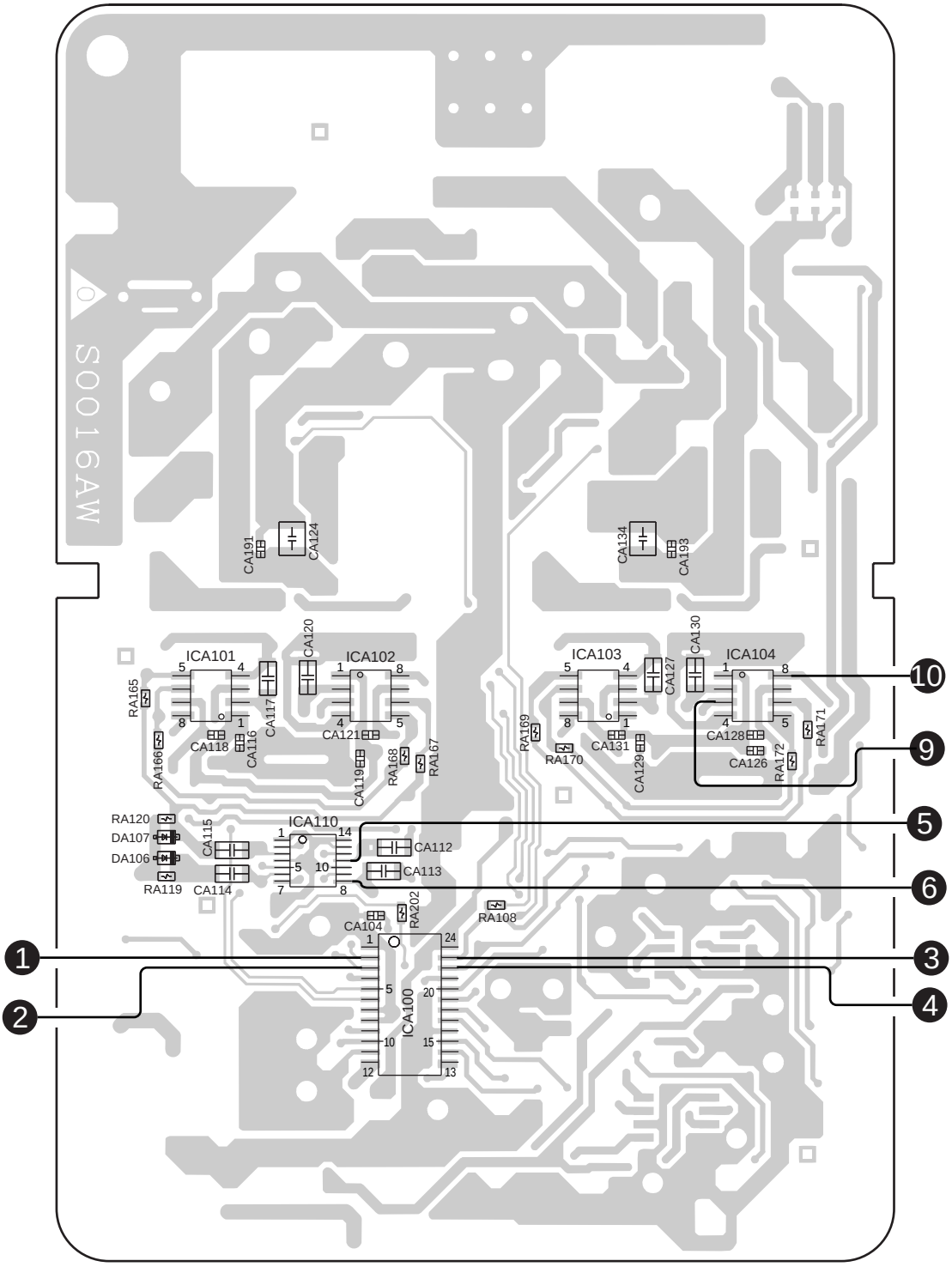
Figure 57 WIRING SIDE OF P.W.BOARD (7/11)



• The numbers 1 to 12 are waveform numbers shown in page 78.

Figure 58 WIRING SIDE OF P.W.BOARD (8/11)

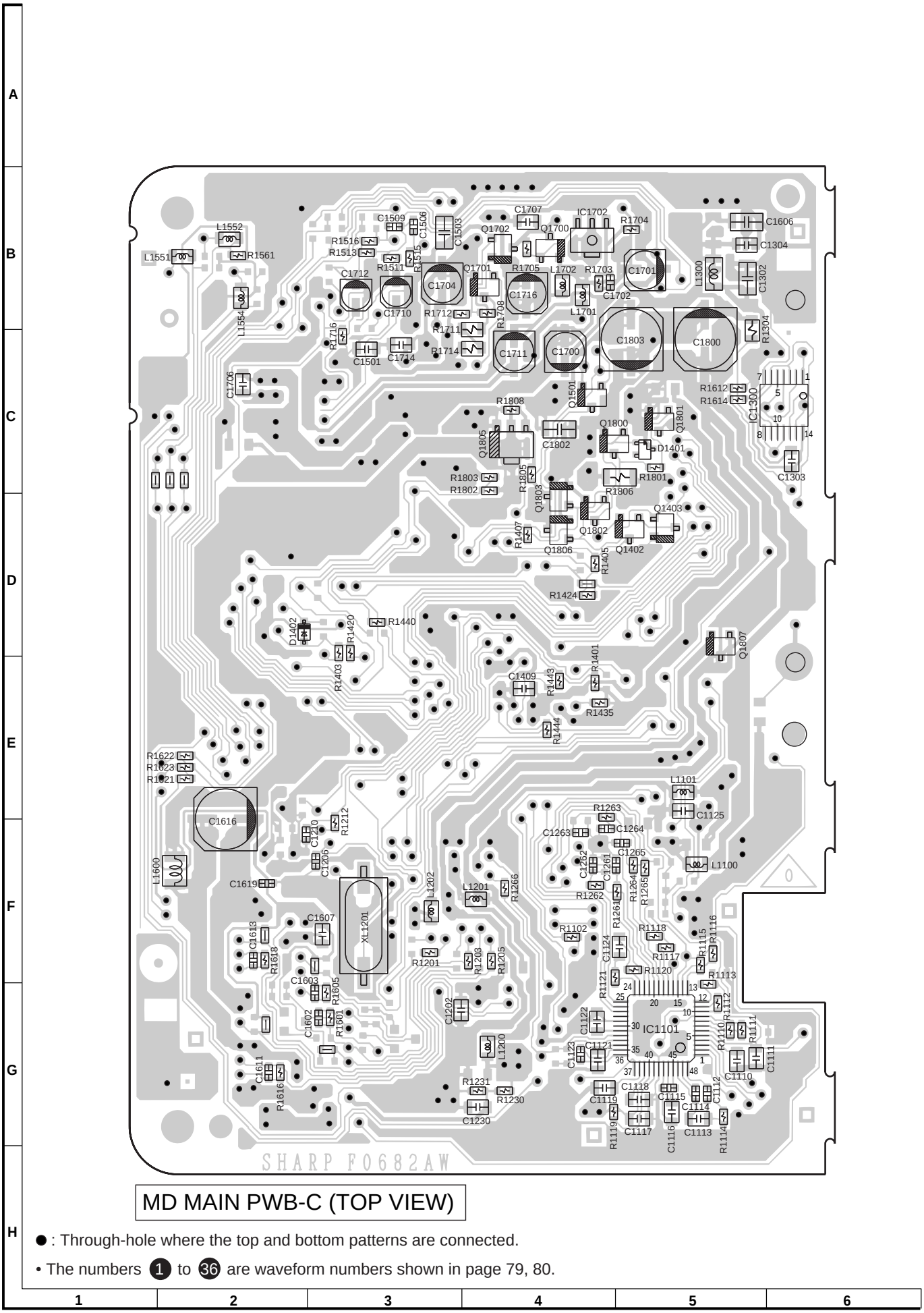
COLOR TABLE	BR	RD(R)	OR	YL	GR	BL	VL	GY	WH(W)	BK	PK
	BROWN	RED	ORANGE	YELLOW	GREEN	BLUE	VIOLET	GRAY	WHITE	BLACK	PINK



1-BIT AMP PWB-D (TOP VIEW)

7	8	9	10	11	12

Figure 59 WIRING SIDE OF P.W.BOARD (9/11)

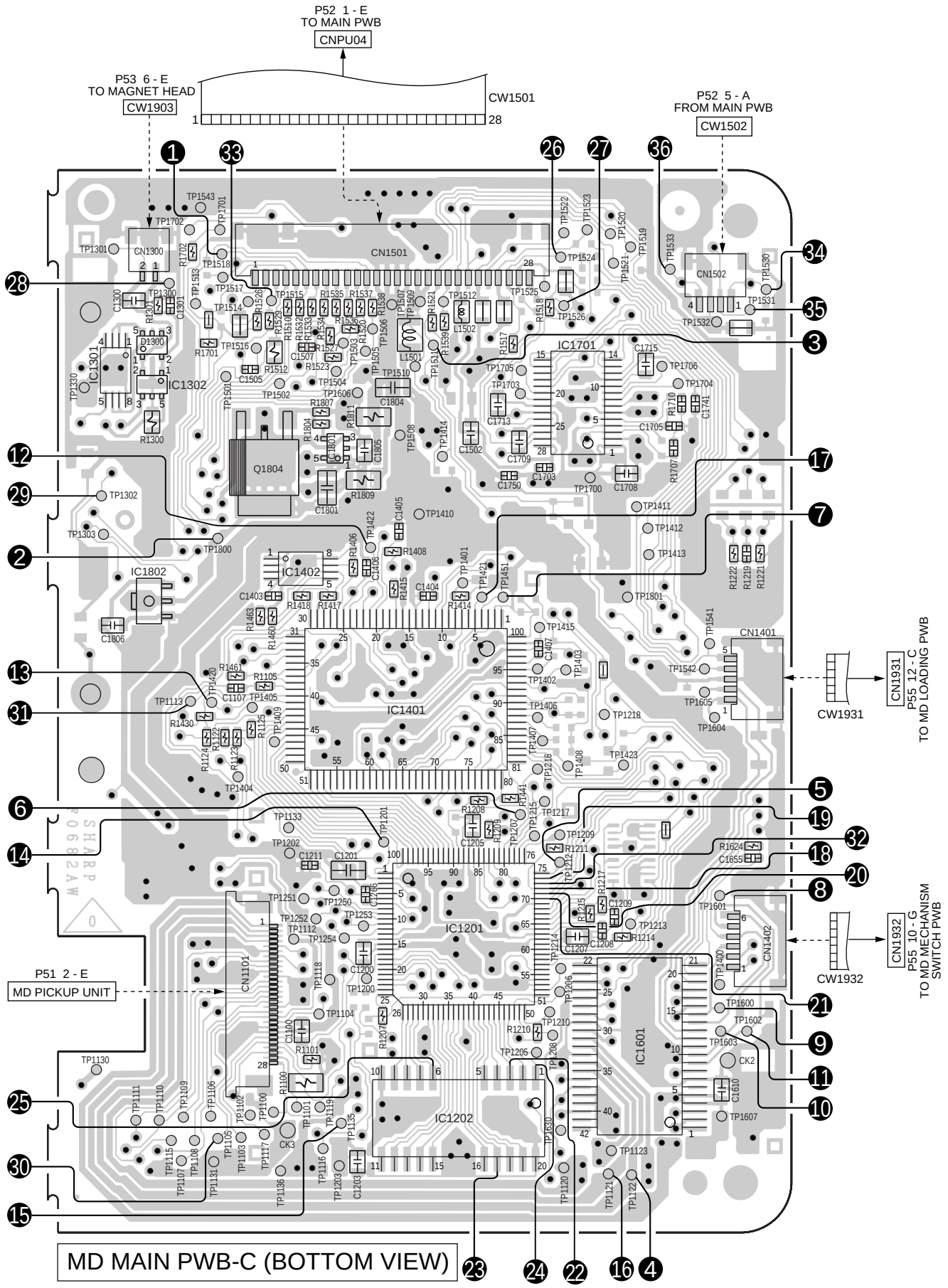


MD MAIN PWB-C (TOP VIEW)

● : Through-hole where the top and bottom patterns are connected.

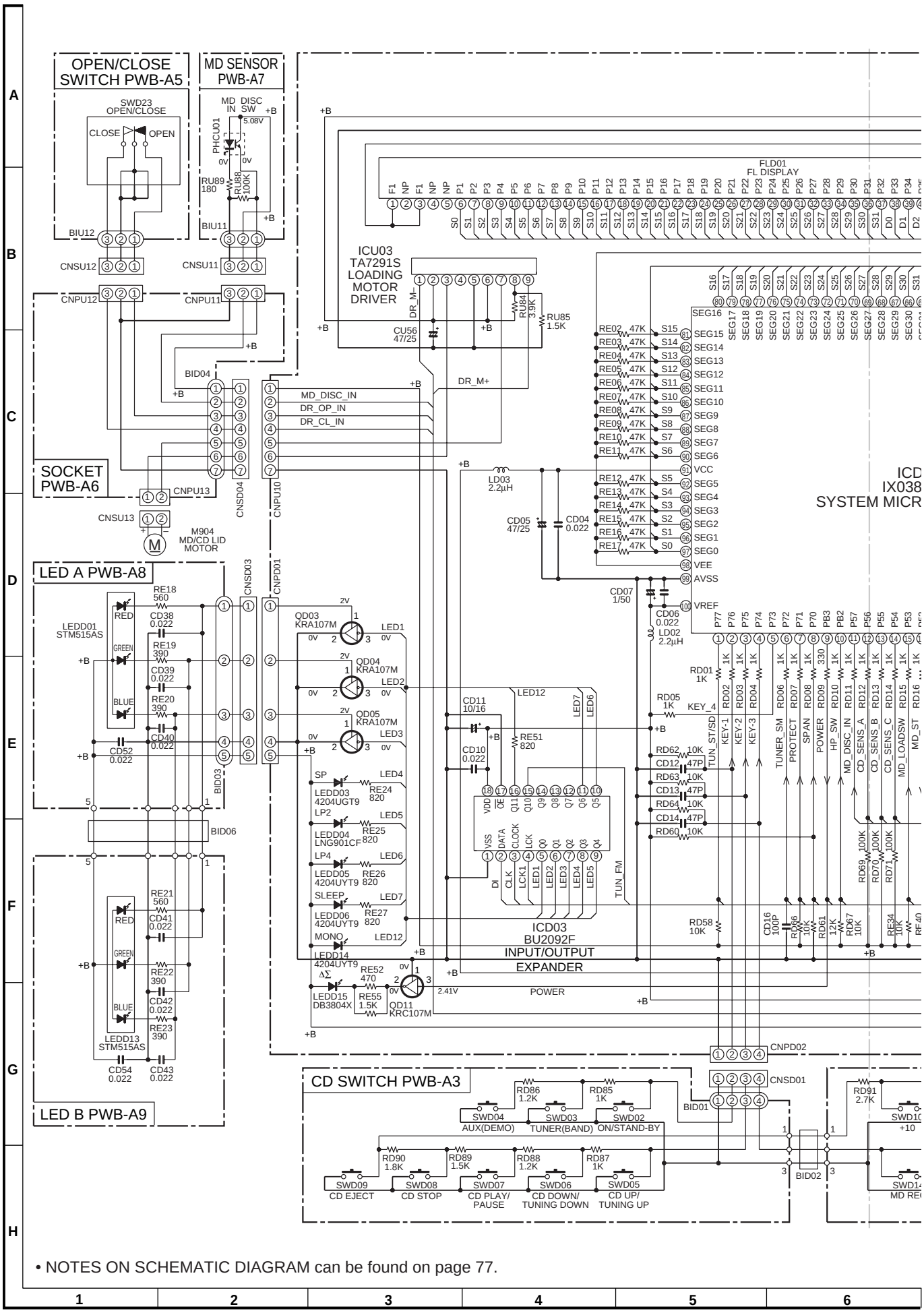
• The numbers ❶ to ㊱ are waveform numbers shown in page 79, 80.

Figure 60 WIRING SIDE OF P.W.BOARD (10/11)



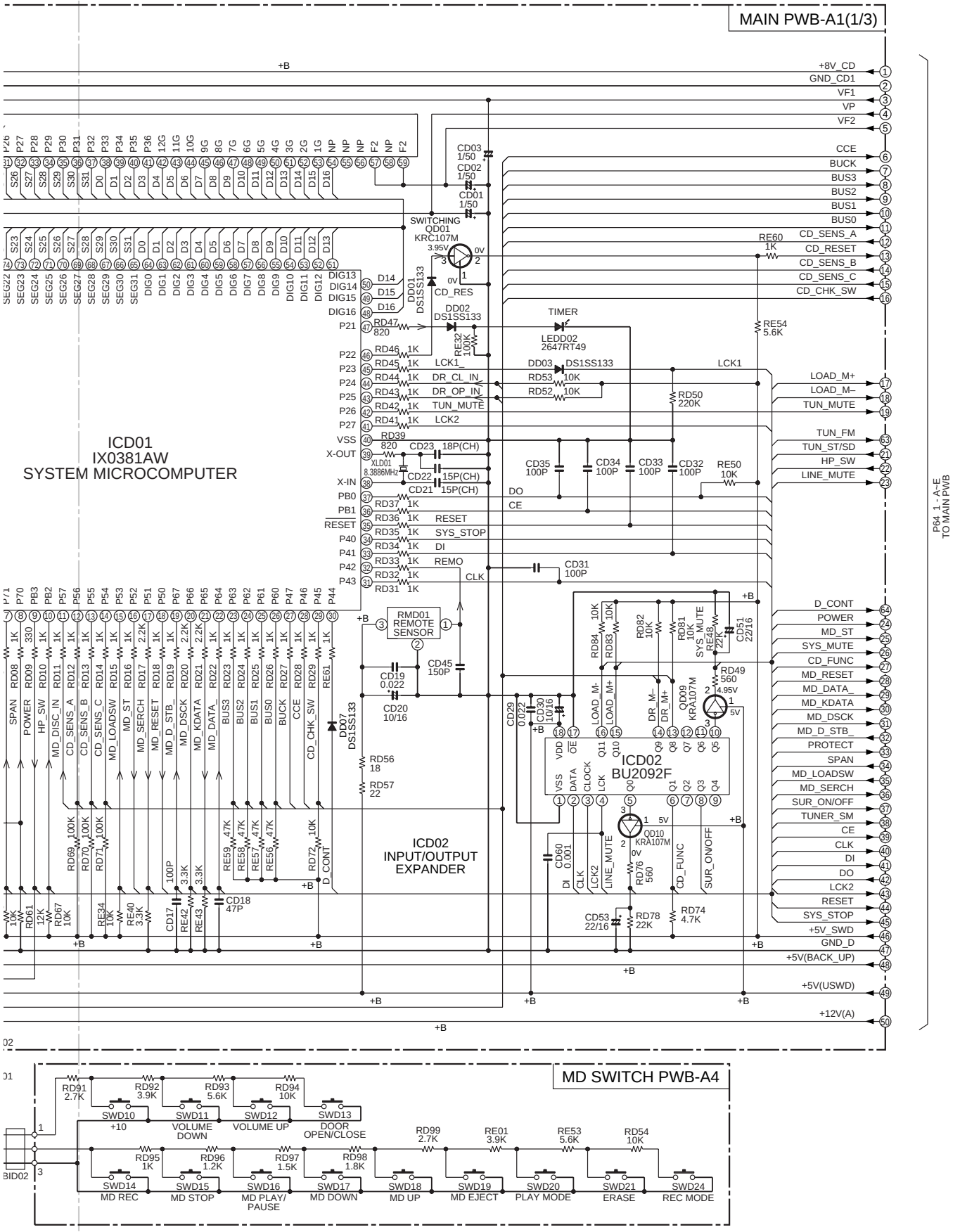
7	8	9	10	11	12

Figure 61 WIRING SIDE OF P.W.BOARD (11/11)



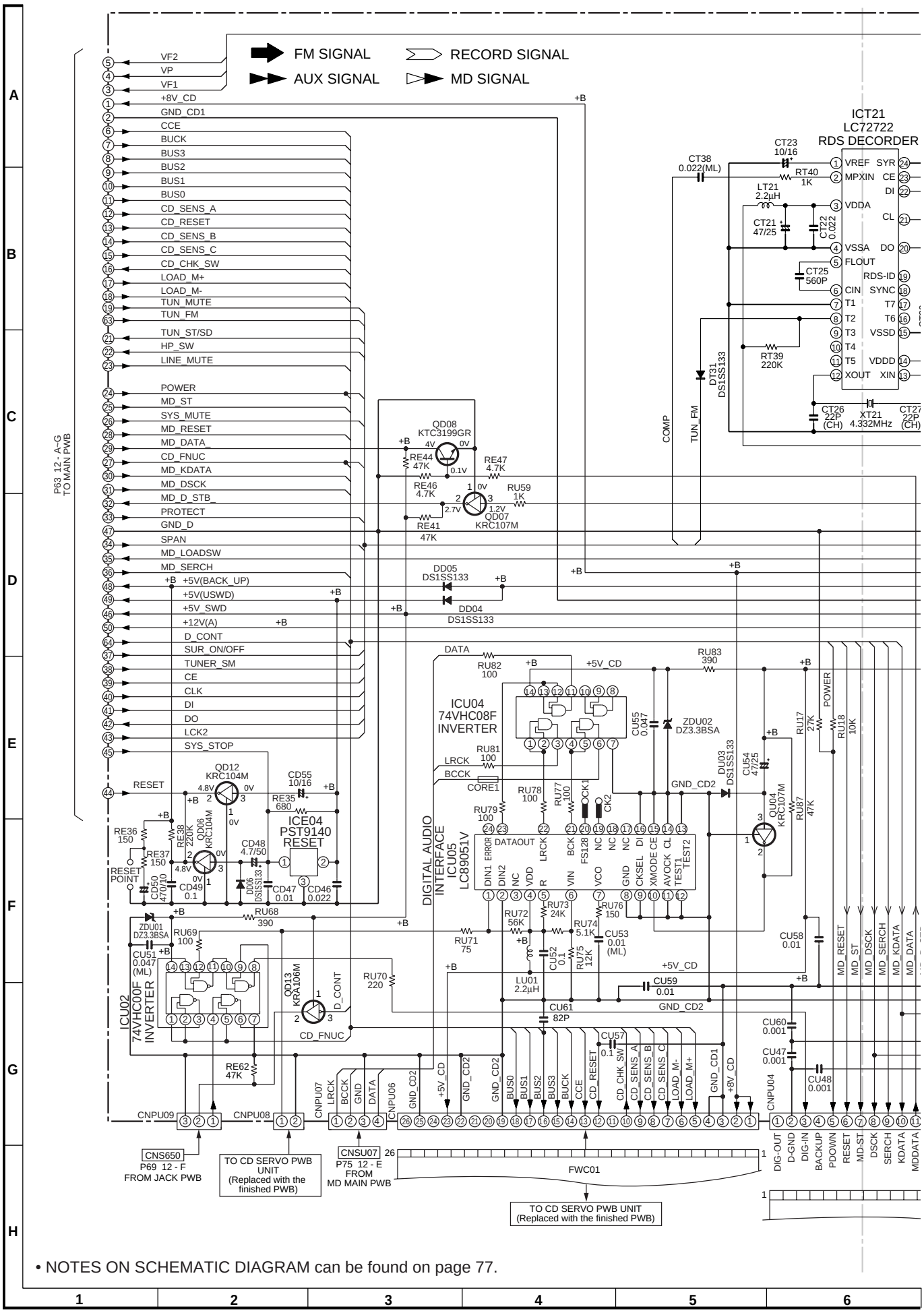
• NOTES ON SCHEMATIC DIAGRAM can be found on page 77.

Figure 62 SCHEMATIC DIAGRAM (1/14)



7	8	9	10	11	12

Figure 63 SCHEMATIC DIAGRAM (2/14)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 77.

Figure 64 SCHEMATIC DIAGRAM (3/14)

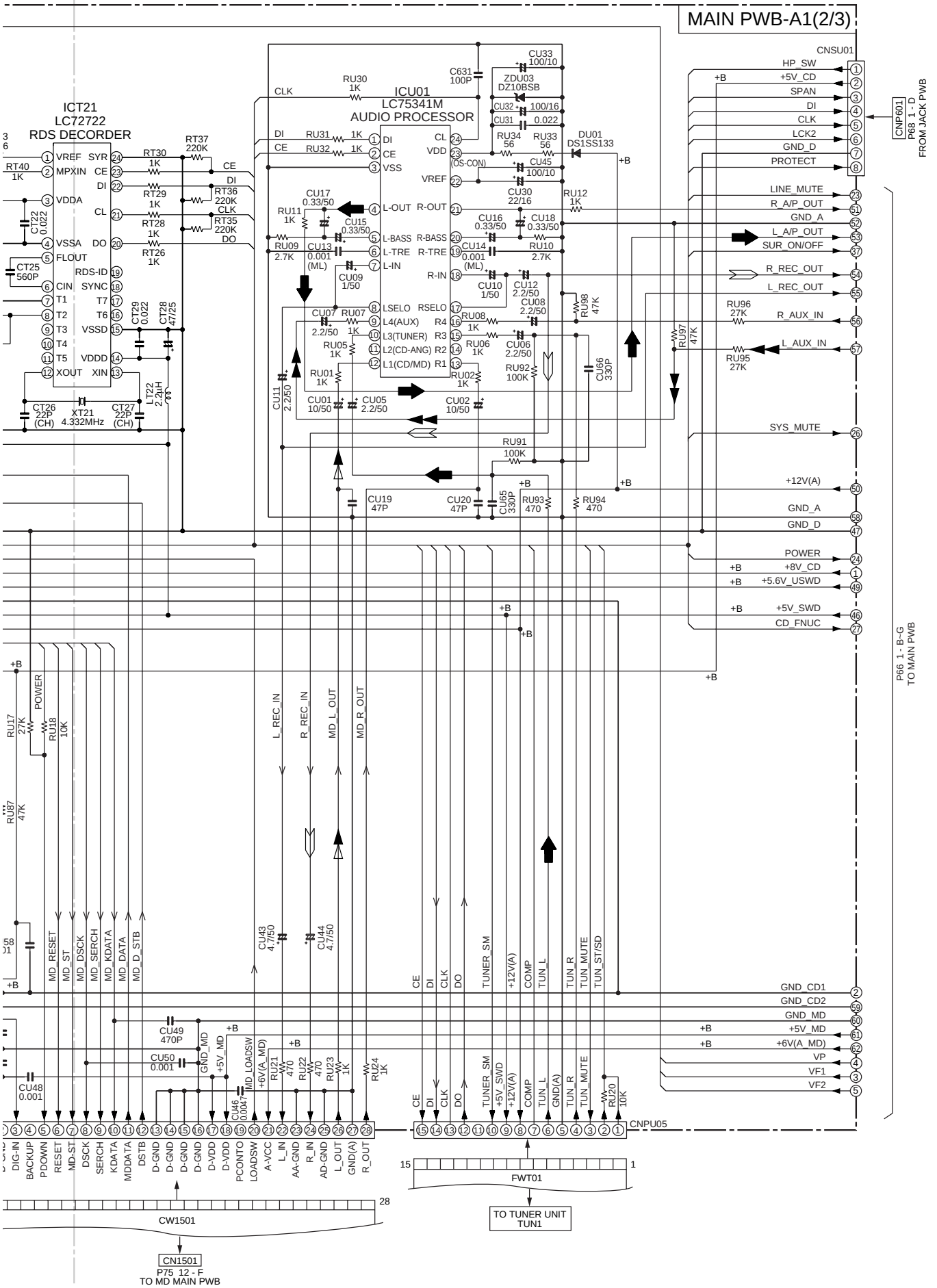
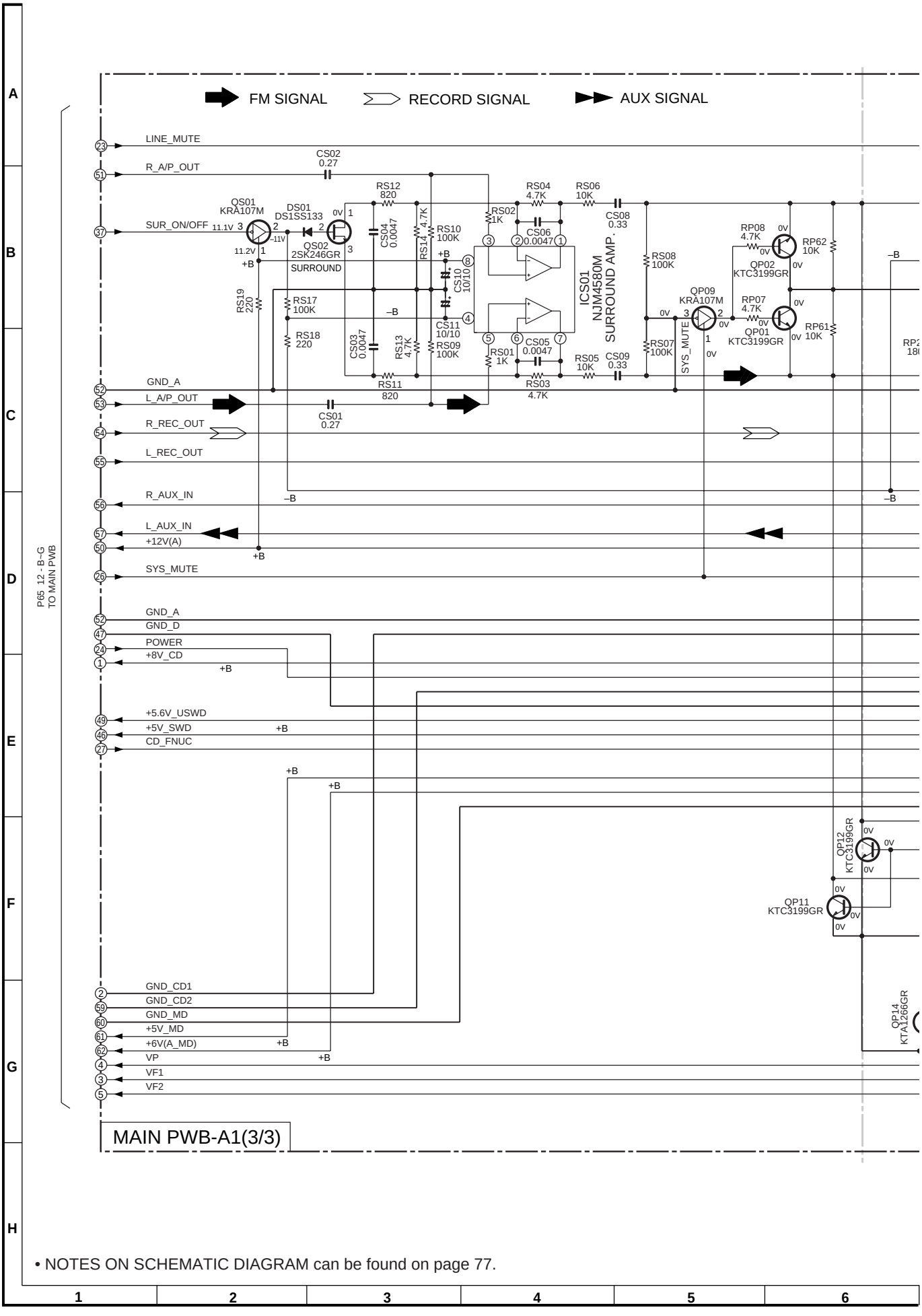
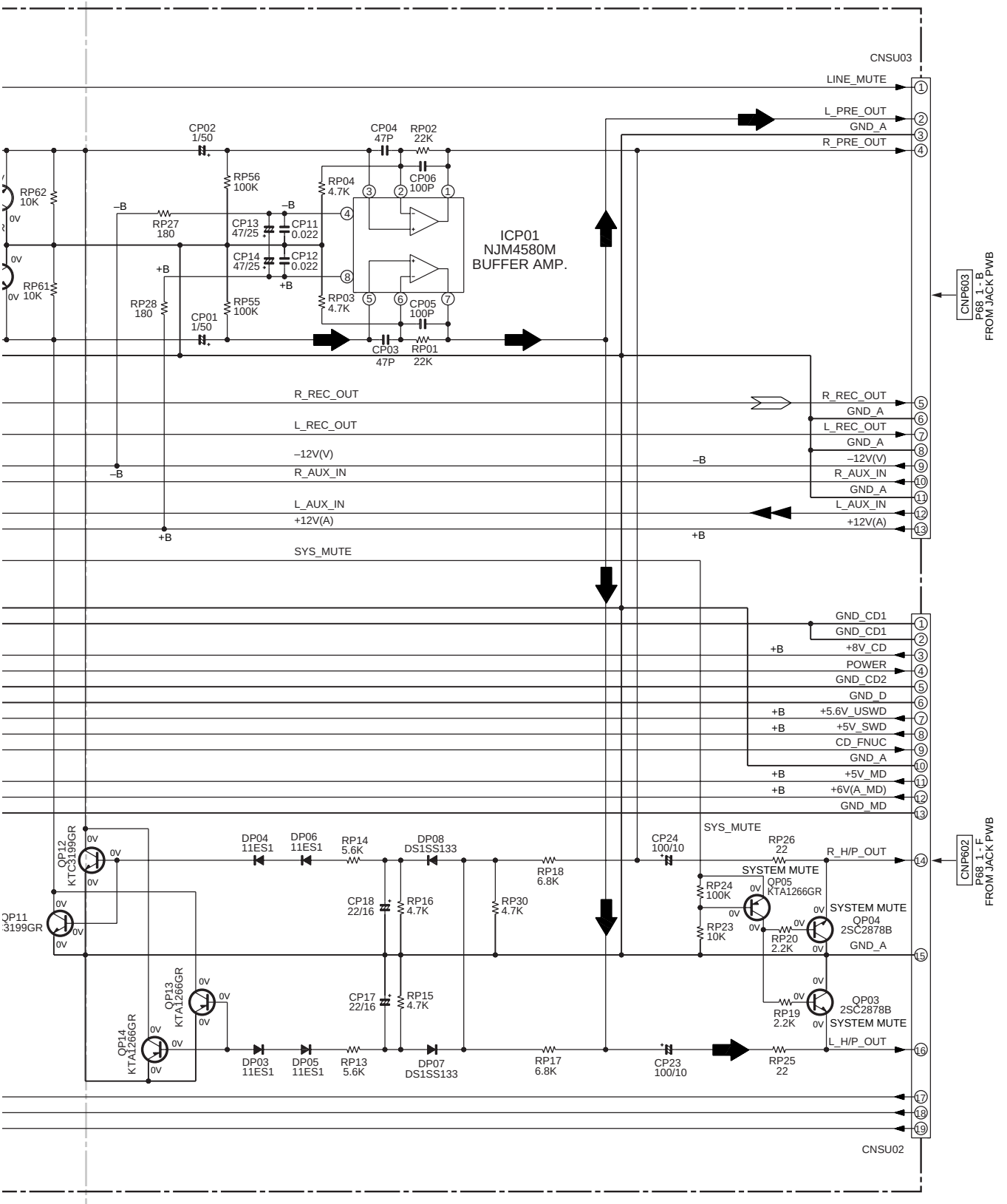


Figure 65 SCHEMATIC DIAGRAM (4/14)



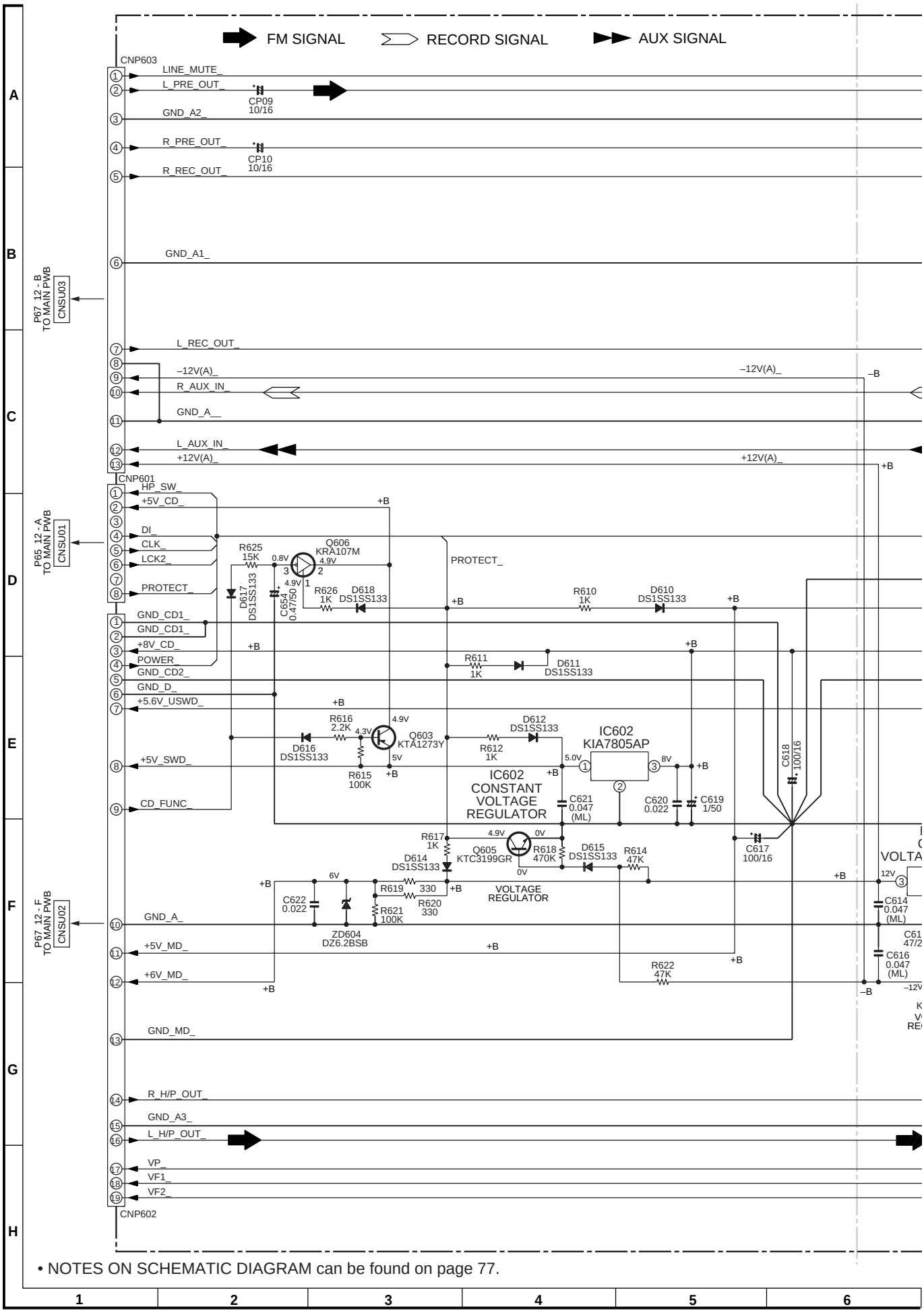
• NOTES ON SCHEMATIC DIAGRAM can be found on page 77.

Figure 66 SCHEMATIC DIAGRAM (5/14)



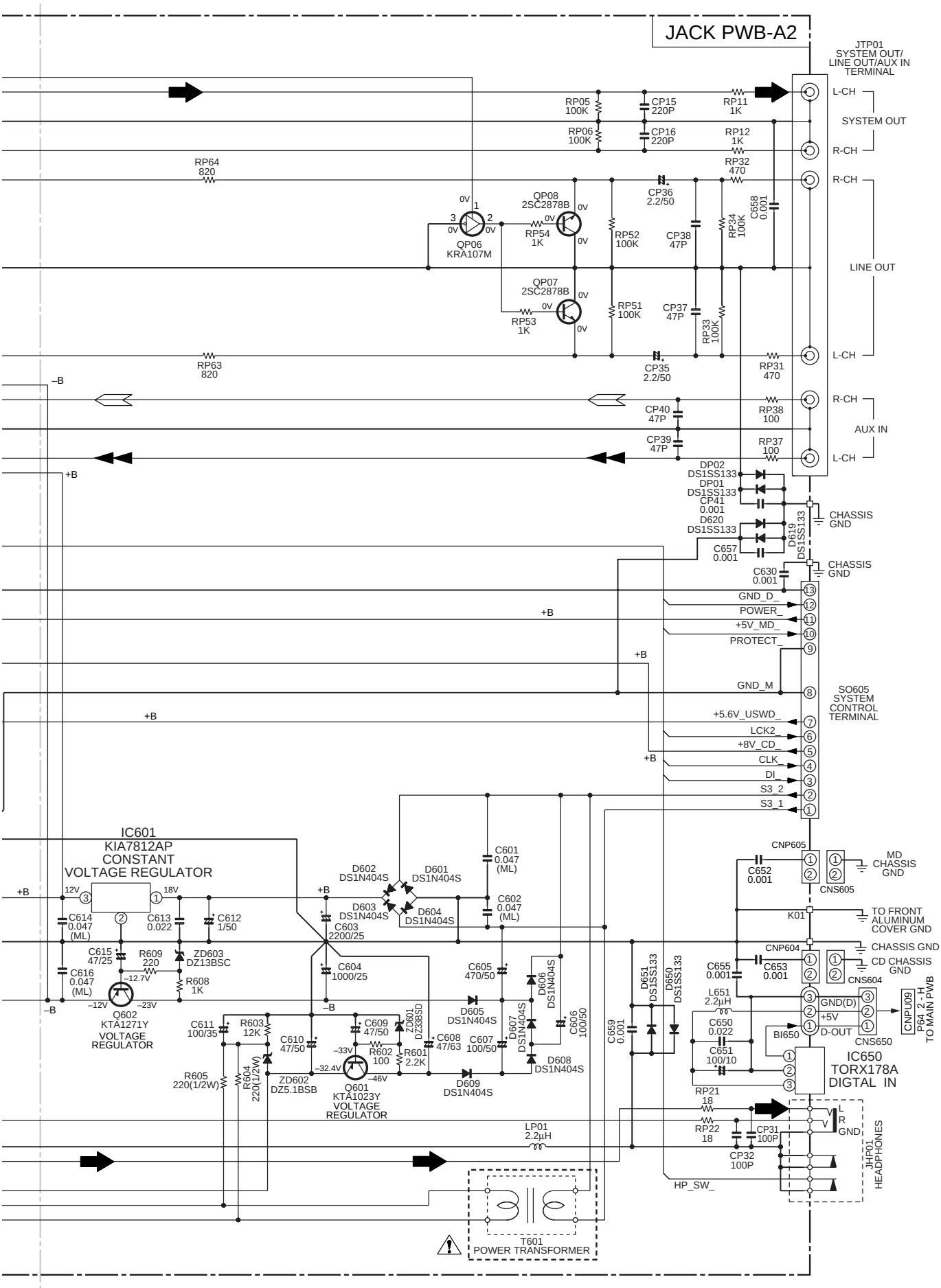
7	8	9	10	11	12

Figure 67 SCHEMATIC DIAGRAM (6/14)



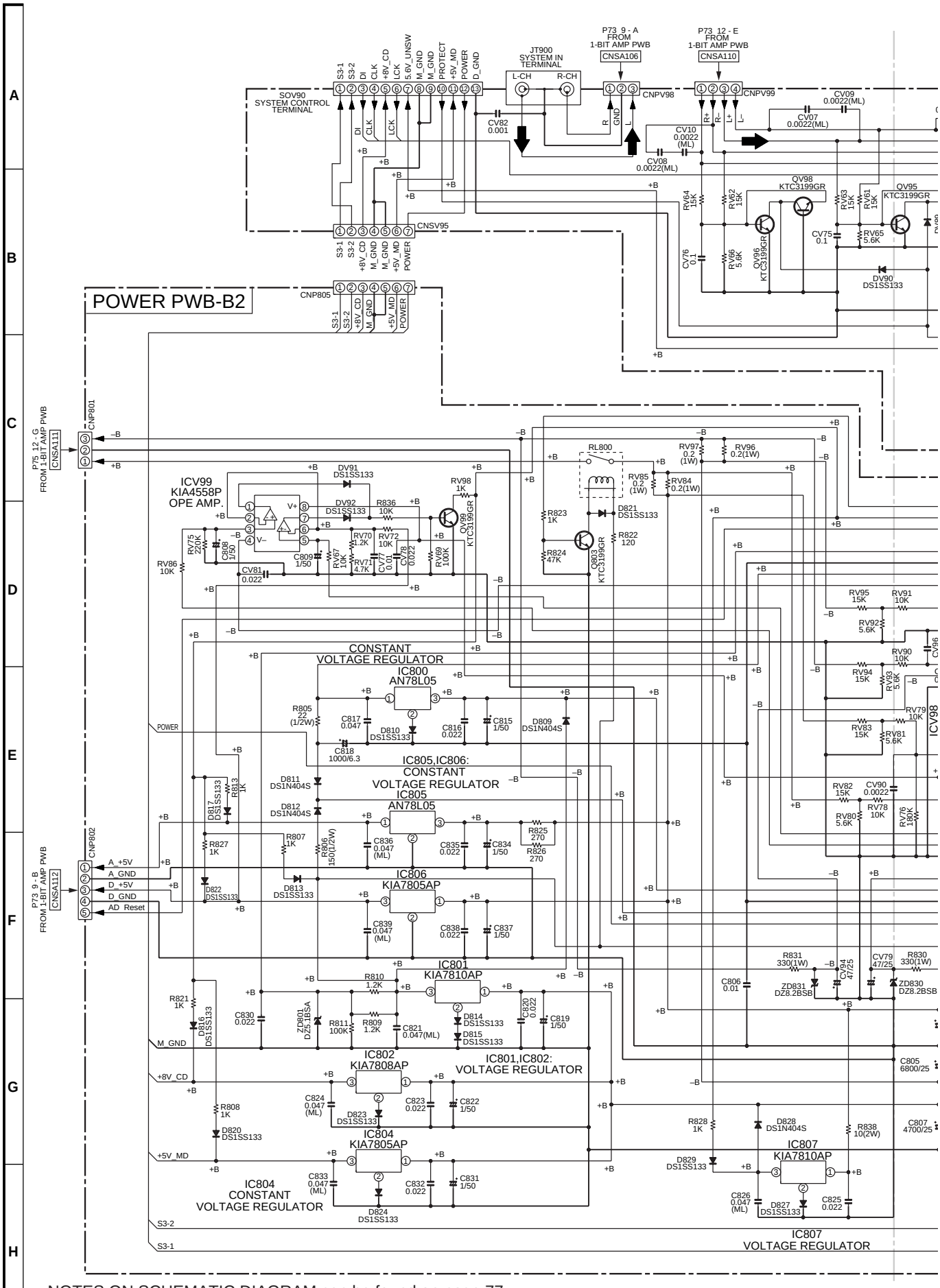
• NOTES ON SCHEMATIC DIAGRAM can be found on page 77.

Figure 68 SCHEMATIC DIAGRAM (7/14).



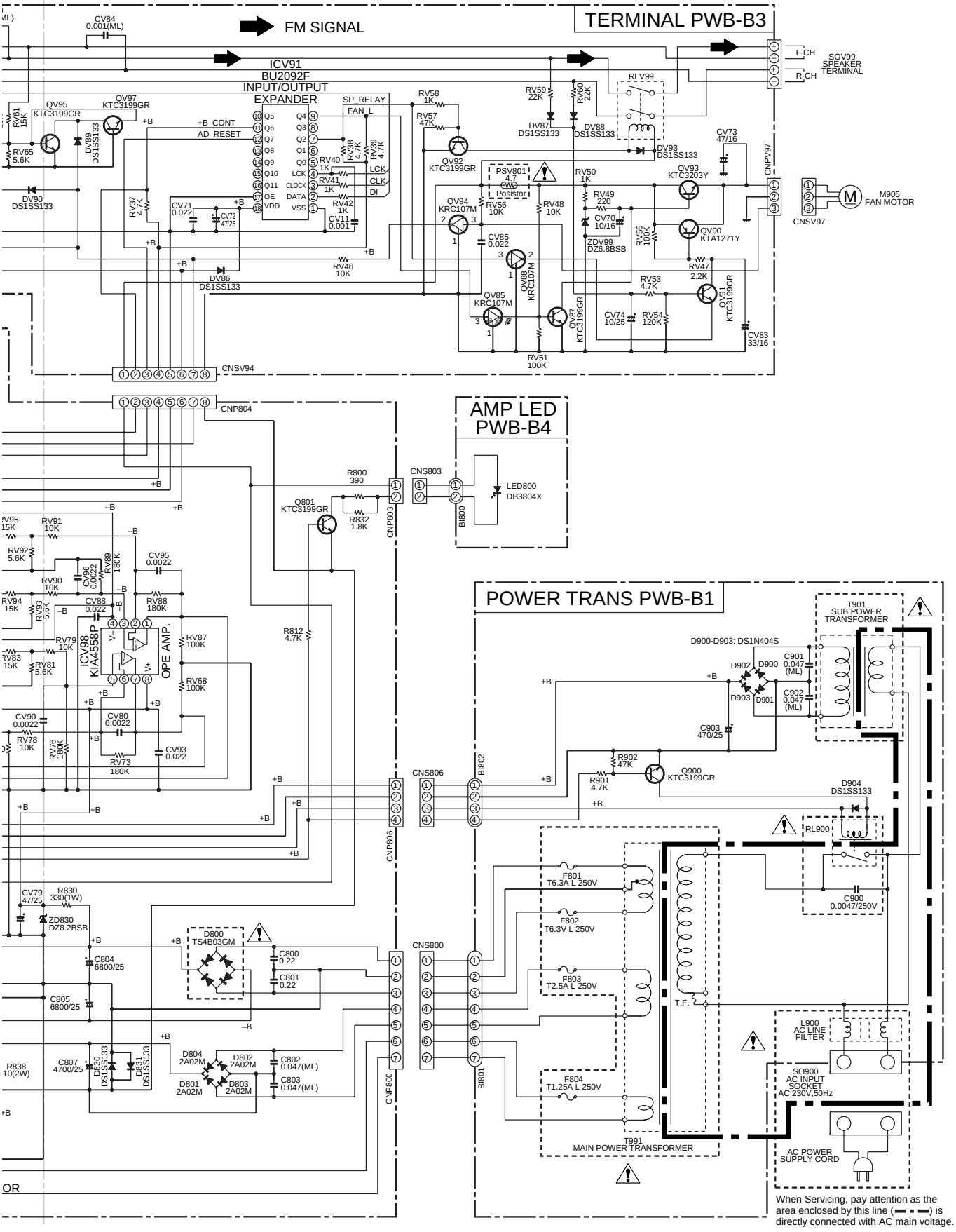
7	8	9	10	11	12

Figure 69 SCHEMATIC DIAGRAM (8/14)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 77.

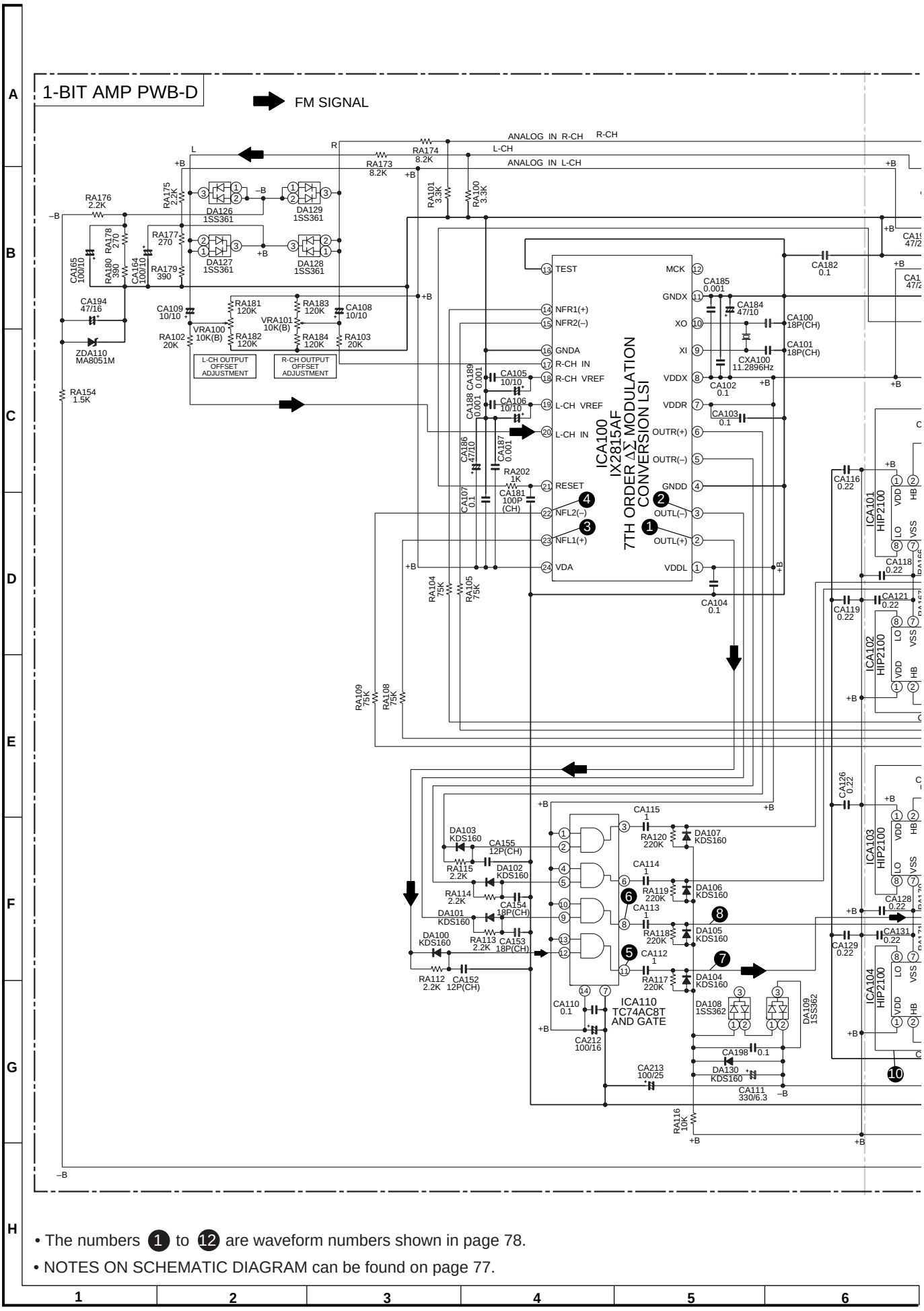
Figure 70 SCHEMATIC DIAGRAM (9/14)



When Servicing, pay attention as the area enclosed by this line (▬ ▬ ▬) is directly connected with AC main voltage.

7	8	9	10	11	12

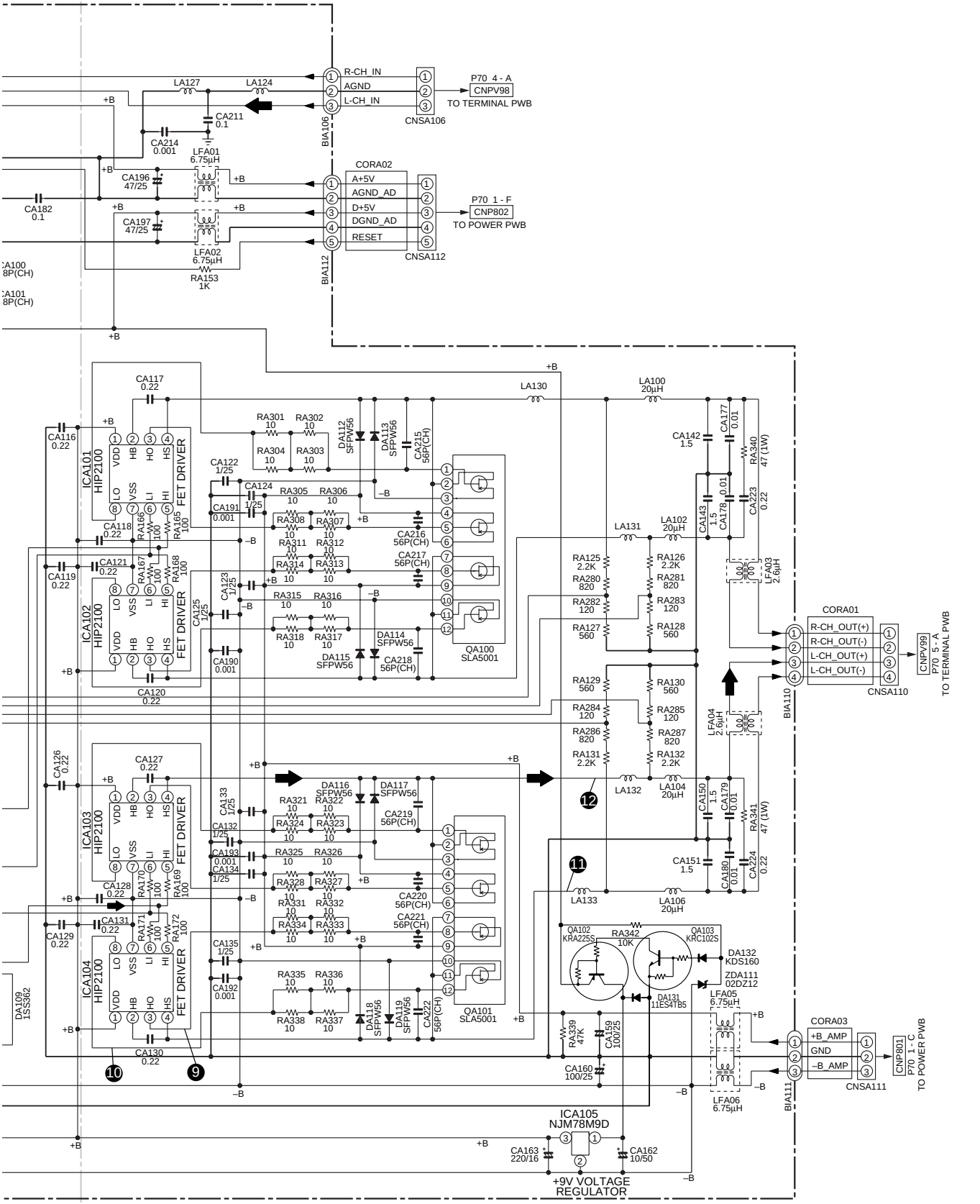
Figure 71 SCHEMATIC DIAGRAM (10/14)



• The numbers 1 to 12 are waveform numbers shown in page 78.

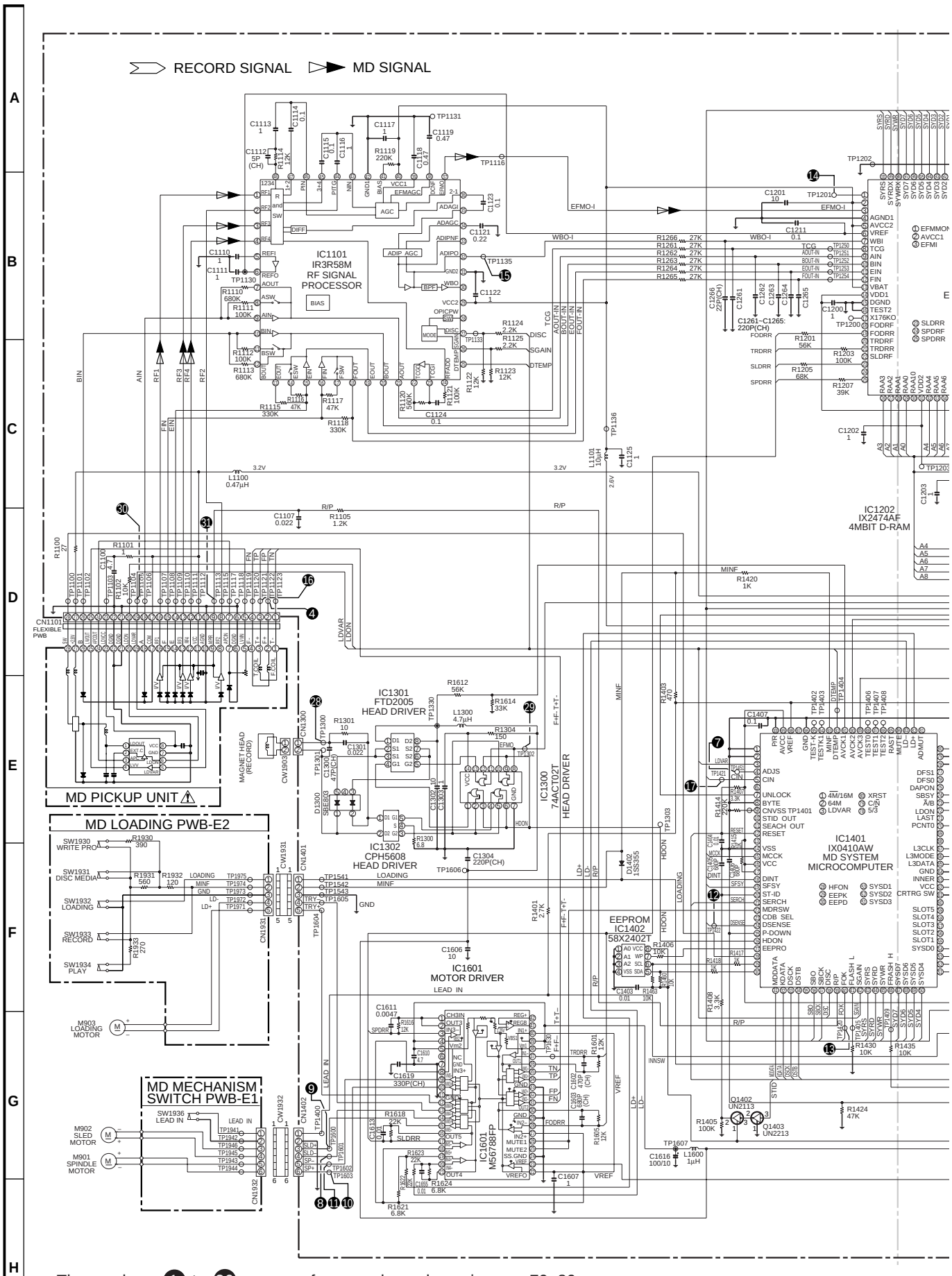
• NOTES ON SCHEMATIC DIAGRAM can be found on page 77.

Figure 72 SCHEMATIC DIAGRAM (11/14)



7	8	9	10	11	12

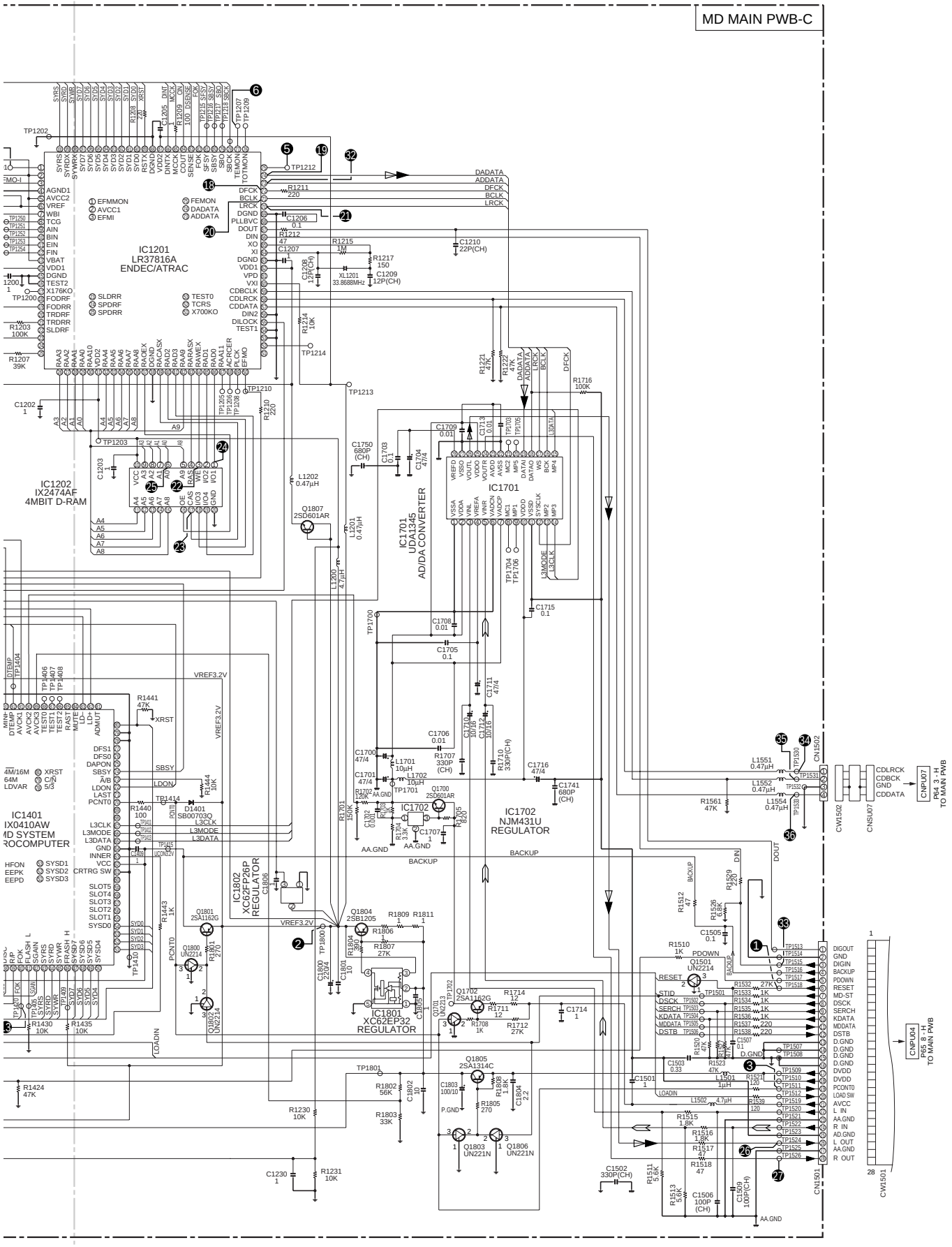
Figure 73 SCHEMATIC DIAGRAM (12/14)



• The numbers 1 to 36 are waveform numbers shown in page 79, 80.

• NOTES ON SCHEMATIC DIAGRAM can be found on page 77.

Figure 74 SCHEMATIC DIAGRAM (13/14)



7	8	9	10	11	12

Figure 75 SCHEMATIC DIAGRAM (14/14)

VOLTAGE

IC800	
PIN NO.	VOLTAGE
1	5.4V
2	–
3	10.8V

IC801	
PIN NO.	VOLTAGE
1	18.8V
2	–
3	11.0V

IC802	
PIN NO.	VOLTAGE
1	18.8V
2	–
3	8.0V

IC804	
PIN NO.	VOLTAGE
1	18.8V
2	–
3	5.4V

IC805	
PIN NO.	VOLTAGE
1	5.0V
2	–
3	15.0V

IC806	
PIN NO.	VOLTAGE
1	16.6V
2	–
3	5.1V

IC807	
PIN NO.	VOLTAGE
1	18.2V
2	–
3	10.4V

ICD02	
PIN NO.	VOLTAGE
1	0V
2	4.87V
3	4.87V
4	4.88V
5	5.05V
6	4.97V
7	0V
8	11.1V
9	0V
10	0V
11	0V
12	0V
13	4.09V
14	4.9V
15	0.02V
16	0.02V
17	0V
18	5.08V

ICD03	
PIN NO.	VOLTAGE
1	0V
2	4.89V
3	4.89V
4	4.42V
5	10.81V
6	9.86V
7	9.92V
8	10.7V
9	10.09V
10	10.72V
11	10.69V
12	0V
13	0V
14	0V
15	0V
16	10.71V
17	0V
18	5.0V

ICE04	
PIN NO.	VOLTAGE
1	0V
2	4.8V
3	0V

ICV91	
PIN NO.	VOLTAGE
1	0V
2	4.9V
3	4.9V
4	4.9V
5	–
6	–
7	1.4V
8	–
9	3.5V
10	–
11	1.5V
12	5.0V
13	–
14	–
15	–
16	–
17	0V
18	5.6V

ICV98	
PIN NO.	VOLTAGE
1	1.3V
2	–2.8V
3	–2.8V
4	–8.2V
5	3.4V
6	3.4V
7	1.2V
8	8.2V

ICV99	
PIN NO.	VOLTAGE
1	–7.0V
2	1.8V
3	0.21V
4	–8.2V
5	–0.13V
6	1.8V
7	–7.0V
8	8.2V

QU04	
PIN NO.	VOLTAGE
1	0V(0V)
2	0V(4.4V)
3	0V(0V)

ICU02	
PIN NO.	VOLTAGE
1	4.91V(2.46V)
2	4.91V(2.46V)
3	0V(1.6V)
4	4.34V(2.4V)
5	4.91V(2.4V)
6	0V(1.5V)
7	0V(0V)
8	0V(0V)
9	0V(0V)
10	3.23V(0V)
11	3.23V(0V)
12	0V(0V)
13	0V(0V)
14	3.23V(3.21V)

ICU03	
PIN NO.	VOLTAGE
1	0V
2	8.6V
3	1.2V
4	0V
5	0V
6	8.6V
7	0.1V
8	2.42V
9	0V

ICU04	
PIN NO.	VOLTAGE
1	0V(0.1V)
2	0V(0.1V)
3	0.02V(3.19V)
4	0.03V(4.46V)
5	0.03V(0.1V)
6	0.03V(3.19V)
7	0V(0V)
8	0V(1.6V)
9	0V(3.19V)
10	0.03V(1.3V)
11	0.03V(1.3V)
12	0.02V(2.33V)
13	0.02V(3.19V)
14	0V(3.19V)

( ): CD MODE

ICD01			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	4.96V	51	–29.5V
2	5V	52	–29.5V
3	5V	53	–29.5V
4	5V	54	–29.5V
5	4.9V	55	–29.5V
6	–27mV	56	–29.5V
7	5.0V	57	–29.5V
8	5.0V	58	–29.5V
9	4.7V	59	–29.5V
10	3.0V	60	–29.5V
11	0.68V	61	–29.5V
12	0.1V	62	–29.5V
13	0.12V	63	–29.5V
14	0.1V	64	–0.5V
15	0.1V	65	–0.9V
16	0.07V	66	–0.5V
17	0.01V	67	–1.9V
18	0V	68	–29.2V
19	0V	69	–32.2V
20	2.8V	70	0V
21	4.0V	71	–38V
22	0.1V	72	–29.2V
23	4.0V	73	–29.2V
24	0V	74	–32.2V
25	0V	75	0V
26	0V	76	–0.5V
27	0V	77	–29.2V
28	0V	78	–0.9V
29	0V	79	–29.5V
30	5V(0V)	80	0V
31	0V	81	–0.5V
32	4.95V	82	–32.2V
33	0.1V	83	–26.5V
34	0.1V	84	–29.4V
35	5V	85	0.5V
36	0V	86	–0.5V
37	4.9V	87	–1.5V
38	2.17V	88	–29.5V
39	2.19V	89	–29.5V
40	0V	90	0.4V
41	4.88V	91	4.9V
42	4.88V	92	–26.8V
43	0V	93	–0.9V
44	4.97V	94	0V
45	4.85V	95	0V
46	4.84V	96	–0.9V
47	0V	97	–32.2V
48	–29.5V	98	–32.4V
49	–29.3V	99	0V
50	–29.5V	100	5V

( ): AUX DIGITAL ONLY

ICU05	
PIN NO.	VOLTAGE
1	0V(2.33V)
2	0V(0V)
3	0.3V(0V)
4	0V(0V)
5	0V(1.8V)
6	0V(0V)
7	0V(0V)
8	0V(0V)
9	0V(0V)
10	0V(4.9V)
11	0V(0V)
12	0V(0V)
13	0V(0V)
14	0V(0V)
15	0V(0V)
16	0V(0V)
17	0.4V(0V)
18	0.3V(4.9V)
19	0.4V(3.2V)
20	0.4V(2.0V)
21	0.4V(2.3V)
22	0.3V(1.75V)
23	0.4V(0.5V)
24	0.4V(0V)

( ): CD MODE

ICU01	
PIN NO.	VOLTAGE
1	4.88V
2	0.02V
3	0V
4	4.27V
5	4.27V
6	4.25V
7	4.25V
8	4.25V
9	4.25V
10	4.25V
11	4.25V
12	4.25V
13	4.25V
14	4.25V
15	4.25V
16	4.25V
17	4.25V
18	4.25V
19	4.25V
20	4.26V
21	4.27V
22	4.26V
23	8.52V
24	4.88V

CNPU05	
PIN NO.	VOLTAGE
1	4.96V(4.97V)
2	4.97V(4.97V)
3	4.97V(4.64V)
4	0V(0V)
5	0V(0V)
6	0V(0V)
7	2.6V(3.53V)
8	12.2V(12.2V)
9	4.97V(4.97V)
10	1.1V(1.3V)
11	0V(0.2V)
12	4.91V(4.89V)
13	4.87V(0V)
14	4.87V(0V)
15	10.43V(0V)

( ): TUNER MODE

ICS01	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–11V
5	0V
6	0V
7	0V
8	11.2V

ICP01	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–11.5V
5	0V
6	0V
7	0V
8	11.8V

IC1101	
PIN NO.	VOLTAGE
1	0.7V
2	0.7V
3	0.7V
4	0.7V
5	1.3V
6	1.3V
7	1.3V
8	1.3V
9	1.3V
10	1.3V
11	1.3V
12	1.3V
13	1.3V
14	1.3V
15	1.3V
16	1.3V
17	1.3V
18	1.3V
19	1.3V
20	1.3V
21	1.3V
22	1.3V
23	1.3V
24	0.7V
25	1.5V
26	LOW DISC:2.6V HIGH DISC:0V
27	PIT:2.6V GROOVE:0V
28	2.6V
29	2.6V
30	1.3V
31	0V
32	1.3V
33	1.3V
34	0V
35	1.3V
36	1.3V
37	1.3V
38	1.3V
39	0V
40	2.6V
41	1.6V
42	0V
43	1.3V
44	1.1V
45	0.7V
46	1.3V
47	0.7V
48	0V

IC1202	
PIN NO.	VOLTAGE
1	1.3V
2	1.8V
3	3.1V
4	2.3V
5	1.3V
6	1.7V
7	0.7V
8	0.7V
9	0.7V
10	3.2V
11	0.7V
12	1.1V
13	1.1V
14	1.1V
15	1.1V
16	2.3V
17	2.5V
18	1.8V
19	1.9V
20	0V

IC1250	
PIN NO.	VOLTAGE
1	1V
2	0V
3	3.15V
4	0V
5	0V
6	3.15V
7	3.15V
8	3.15V

IC1251	
PIN NO.	VOLTAGE
1	1V
2	0V
3	3.15V
4	0V
5	0V
6	3.15V
7	3.15V
8	3.15V

IC1201			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	1.3V	51	1.6V
2	2.6V	52	0V
3	1.3V	53	0V
4	0V	54	0V
5	2.6V	55	3.2V
6	1.3V	56	0V
7	1.3V	57	0V
8	1.3V	58	0V
9	1.3V	59	0V
10	1.3V	60	3.2V
11	1.3V	61	0V
12	1.3V	62	2.5V
13	2.6V	63	0V
14	2.6V	64	1V
15	0V	65	1V
16	0V	66	1.6V
17	1.6V	67	1.6V
18	1.6V	68	0V
19	1.6V	69	0V
20	1.6V	70	1.6V
21	1.6V	71	1.6V
22	1.6V	72	1.6V
23	1.6V	73	0V
24	1.6V	74	0V
25	1.6V	75	1.6V
26	0.7V	76	1.6V
27	0.7V	77	1.6V
28	0.7V	78	0V
29	1.7V	79	3.2V
30	1.3V	80	3.2V
31	3.2V	81	3.2V
32	0.7V	82	3.2V
33	1.1V	83	0V
34	1.1V	84	0V
35	1.1V	85	1.6V
36	1.1V	86	3.2V
37	2.3V	87	3.2V
38	0V	88	0V
39	2.5V	89	3.2V
40	1.8V	90	0.2V
41	1.9V	91	0V
42	1.3V	92	0V
43	2.3V	93	0V
44	3.1V	94	0V
45	1.8V	95	0.1V
46	1.3V	96	0V
47	1.3V	97	0V
48	3V	98	3.2V
49	2.6V	99	3.2V
50	1.4V	100	0V

IC1300	
PIN NO.	VOLTAGE
1	(2.6V)
2	(2.6V)
3	(0.1V)
4	(2.6V)
5	(2.6V)
6	(0.1V)
7	(0V)
8	(1.4V)
9	(0.1V)
10	(2.6V)
11	(1.4V)
12	(0.1V)
13	(2.6V)
14	(5V)

IC1301	
PIN NO.	VOLTAGE
1	(5V)
2	(1.4V)
3	(1.4V)
4	(2.5V)
5	(2.5V)
6	(1.4V)
7	(1.4V)
8	(5V)

IC1302	
PIN NO.	VOLTAGE
1	(1.5V)
2	(1.5V)
3	(2.5V)
4	(0V)
5	(2.5V)

( ): REC MODE

IC1402	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	0V
5	3.2V
6	3.2V
7	3.2V
8	3.2V

IC1701	
PIN NO.	VOLTAGE
1	0V
2	3.2V
3	1.6V
4	1.6V
5	1.6V
6	0V
7	3.2V
8	0V
9	0V
10	3.2V
11	0V
12	3.2V
13	3.2V
14	3.2V
15	3.2V
16	0V
17	1.7V
18	0V
19	0V
20	0V
21	0V
22	0V
23	3.2V
24	—
25	3.2V
26	—
27	0V
28	1.6V

IC1401			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0V	51	0V
2	0V	52	0V
3	0V	53	0V
4	0.4V	54	0.2V
5	0V	55	0V
6	0V	56	0V
7	3.2V	57	0V
8	0V	58	0V
9	0V	59	0V
10	0V	60	0V
11	0V	61	0V
12	3.2V	62	3.2V
13	1.5V	63	3.2V
14	0V	64	0V
15	1.6V	65	3.2V
16	3.2V	66	3.2V
17	3.2V	67	3.2V
18	3.2V	68	0V
19	3.2V	69	0V
20	0V	70	3.1V
21	0V	71	0V
22	3.2V	72	0V
23	0V	73	0V
24	0V	74	3.2V
25	2.9V	75	3.2V
26	3.2V	76	0V
27	3.2V	77	0V
28	0V	78	0V
29	3.2V	79	0V
30	3.2V	80	3.2V
31	1.5V	81	0V
32	0V	82	0V
33	2.6V	83	0V
34	0.8V	84	3.2V
35	3.2V	85	0V
36	3.2V	86	3.2V
37	0V	87	3.2V
38	PIT:3.2V GROOVE:0V	88	3.2V
39	0V	89	2V
40	3.2V	90	1.8V
41	0V	91	2.2V
42	LOW DISC:3.2V HIGH DISC:0V	92	1.5V
43	0V	93	0.7V
44	3.2V	94	0V
45	3.2V	95	0V
46	3.2V	96	0V
47	0V	97	0V
48	0V	98	3.2V
49	0.1V	99	3.2V
50	0V	100	0V

IC1601			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	1.6V	22	1.6V
2	1.6V	23	1.6V
3	1.6V	24	0V
4	5V	25	3.2V
5	5V	26	3.2V
6	0V	27	1.6V
7	0V	28	1.6V
8	1.6V	29	0V
9	2.5V	30	1.6V
10	2.5V	31	2.5V
11	0V	32	2.5V
12	2.5V	33	0V
13	2.5V	34	2.5V
14	2.4V	35	2.5V
15	2.5V	36	1.6V
16	1.6V	37	1.6V
17	1.6V	38	5V
18	1.6V	39	5V
19	1.2V	40	1.6V
20	1.2V	41	5V
21	1.6V	42	0.9V

IC1702	
PIN NO.	VOLTAGE
1	2.46V
2	0V
3	3.85V

IC1801	
PIN NO.	VOLTAGE
1	0V
2	5V
3	3.2V
4	3.1V
5	0V

IC1802	
PIN NO.	VOLTAGE
1	0V
2	2.6V
3	3.2V

ICT21	
PIN NO.	VOLTAGE
1	2.5V
2	2.5V
3	5.0V
4	0V
5	2.5V
6	2.5V
7	0V
8	0.7V
9	0V
10	0V
11	0V
12	2.6V
13	2.6V
14	5.0V
15	0V
16	0V
17	0V
18	0V
19	0V
20	4.8V
21	0V
22	0V
23	0V
24	0V

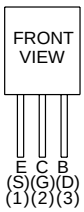
NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with “Fusible” is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means pico-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression “capacitance/withstand voltage” is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
  1. In the tuner section,
     ( ) indicates AM
     < > indicates FM stereo
  2.In the CD section, the CD is stopped.
- Parts marked with “ ⚠ ” (⊏ ═ ═ ═ ⊐) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

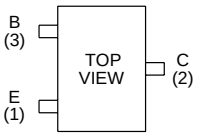
REF. NO	DESCRIPTION	POSITION
SW1930	WRITE PRO	ON—OFF
SW1931	DISC MEDIA	ON—OFF
SW1932	LOADING	ON—OFF
SW1933	RECORD	ON—OFF
SW1934	PLAY	ON—OFF
SW1936	LEAD IN	ON—OFF
SWD02	ON/STAND-BY	ON—OFF
SWD03	TUNER (BAND)	ON—OFF
SWD04	AUX (DEMO)	ON—OFF
SWD05	CD UP/TUNING UP	ON—OFF
SWD06	CD DOWN/TUNING DOWN	ON—OFF
SWD07	CD PLAY/PAUSE	ON—OFF
SWD08	CD STOP	ON—OFF
SWD09	CD EJECT	ON—OFF

REF. NO	DESCRIPTION	POSITION
SWD10	+10	ON—OFF
SWD11	VOLUME DOWN	ON—OFF
SWD12	VOLUME UP	ON—OFF
SWD13	DOOR OPEN/CLOSE	ON—OFF
SWD14	MD REC	ON—OFF
SWD15	MD STOP	ON—OFF
SWD16	MD PLAY/PAUSE	ON—OFF
SWD17	MD DOWN	ON—OFF
SWD18	MD UP	ON—OFF
SWD19	MD EJECT	ON—OFF
SWD20	PLAY MODE	ON—OFF
SWD21	ERASE	ON—OFF
SWD23	OPEN/CLOSE	ON—OFF
SWD24	REC MODE	ON—OFF

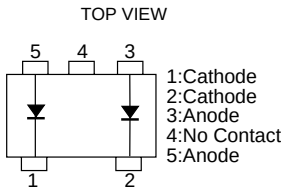
TYPES OF TRANSISTOR AND LED



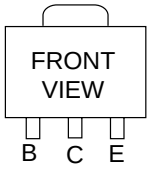
2SC2878 B
2SK246 GR
KTA1023 Y
KTA1266 GR
KTA1271 Y
KTA1273 Y
KTC3199 GR
KTC3203 Y
KRA106 M
KRA107 M
KRC104 M
KRC107 M



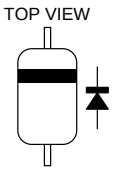
2SA1162 G
2SD601 AR
KRA225 S
KRC102 S
UN2113
UN2213
UN2214
UN221 N



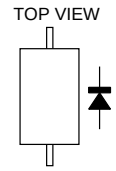
SBE803



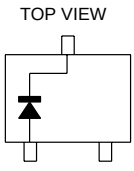
2SA1314 C



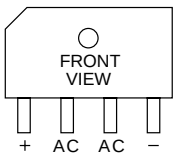
DS1SS133
2SA02M



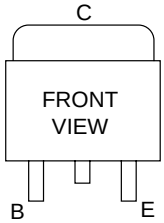
DS1N404S
1SS355



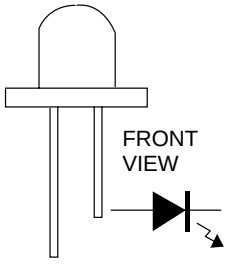
SB00703Q



TS4B03GM

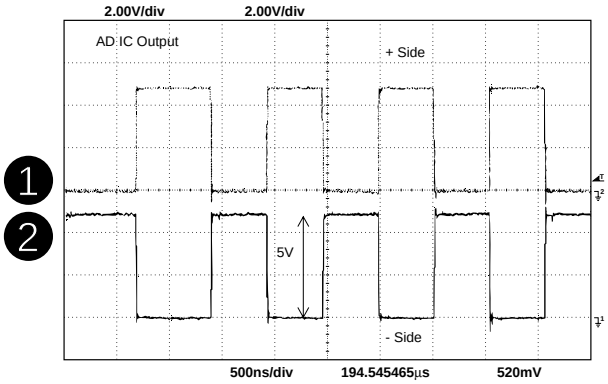


2SB1205



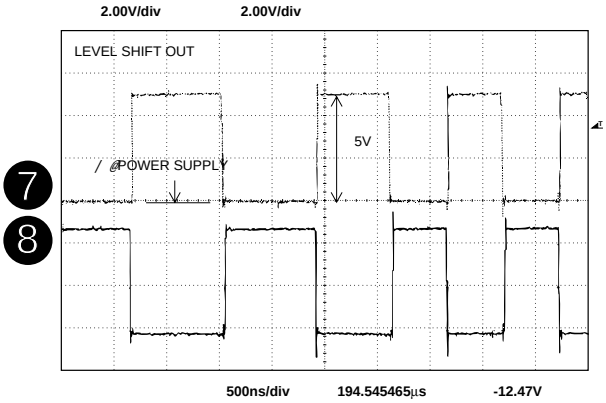
2647RT49
4204UYT9
4204UGT9
DB3804X
LNG901CF

WAVEFORMS OF 1-BIT CIRCUIT



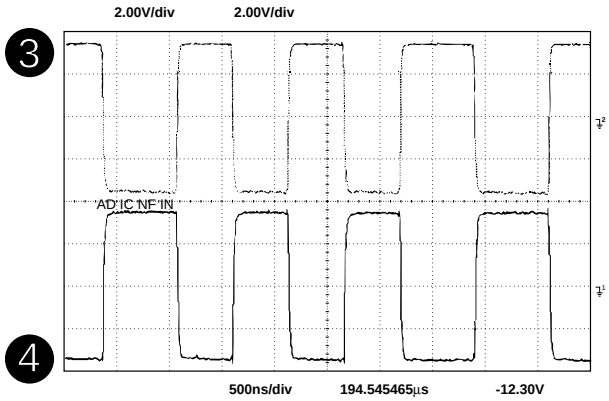
1
2

Amplitude
from 0 to 5 V



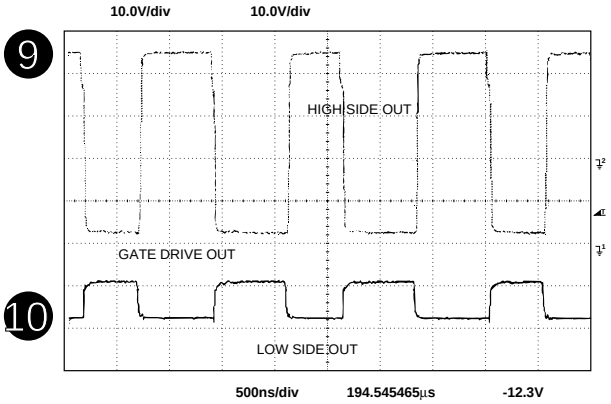
7
8

Waveform after level shift
On the reference side, 5 V amplitude is observed at + 2 V (negative supply voltage), corresponding to VINH and VINL of gate driver during 9 V operation. (Approx. 0.8 VCC and 0.2 VSS)



3
4

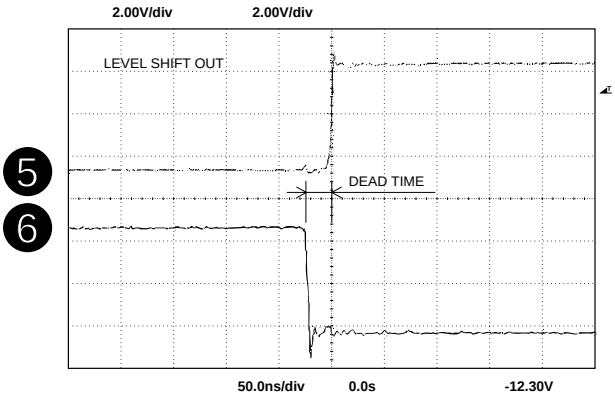
In partial pressure OUT, 4 to 7 V amplitude of GND reference is observed.
In IC of 75 kohms, the reference is 2.5 V because of VREF. Due to imaginary GND of operational amplifier inside IC, the waveform cannot be monitored.
This waveform is partial pressure OUT.



9
10

To make HIGH SIDE FET completely on, the positive supply voltage of + 4.5 V or over is required. At the bootstrap, the gate drive voltage is generated; the HIGH side is driven between (positive power) + 6 V and the negative power.

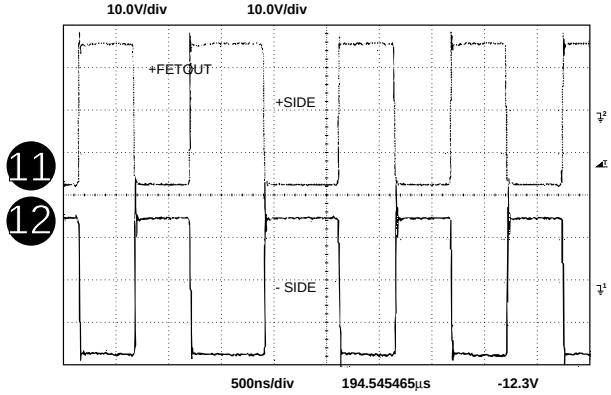
FET is based on the negative supply voltage; the gate voltage of the LOW side FET operates with the negative power and + 9 V.



5
6

ZOOM UP

Dead time is generated by level shift input.
Leading edge is delayed at CR, passing R at DI.
Set value: 20 -25 nsec

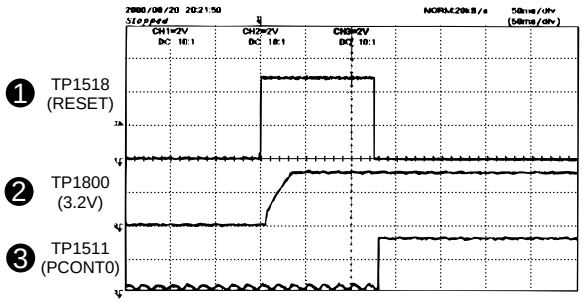


11
12

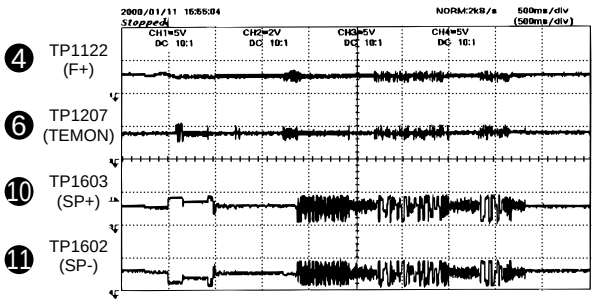
Waveforms before low-pass filters at both ends of the speaker
H-bridge may be considered as BTL. However, here and at the gate drive, dead time is not observed; since bootstrap operates based on output, DEAD TIME part is in floating condition. The waveform on the HI GH side shows that only the booted voltage lowers.

WAVEFORMS OF MD CIRCUIT

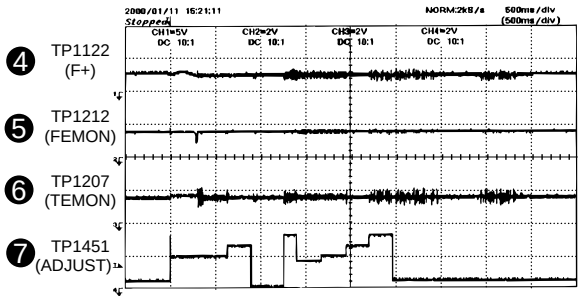
POWER ON



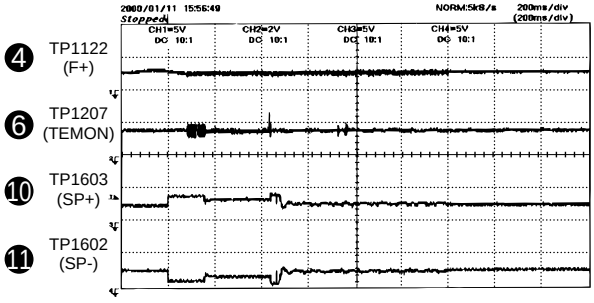
TOC READ (Low reflection disc)



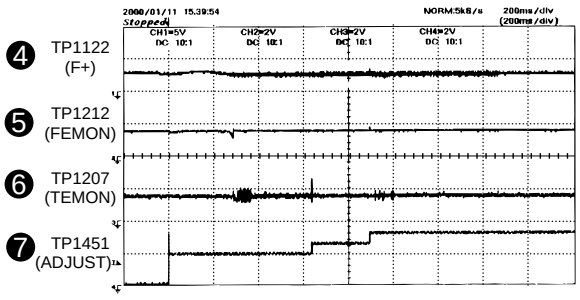
TOC READ (Low reflection disc)



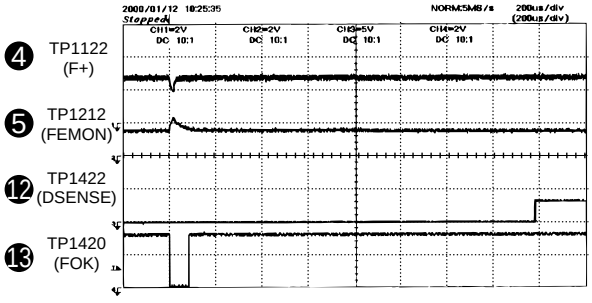
TOC READ (High reflection disc)



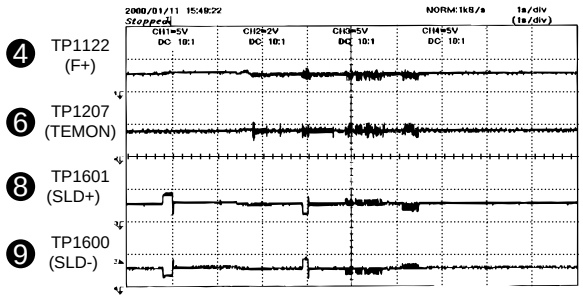
TOC READ (High reflection disc)



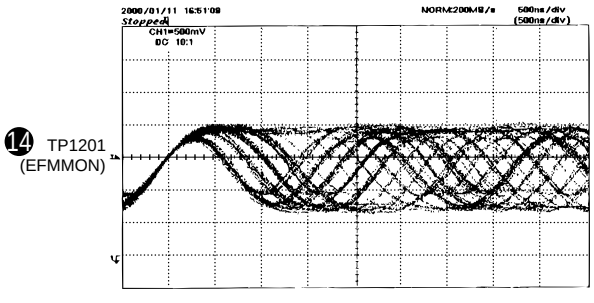
STOP → PLAY



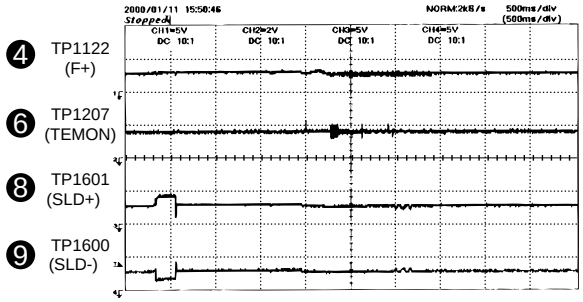
TOC READ (Low reflection disc)



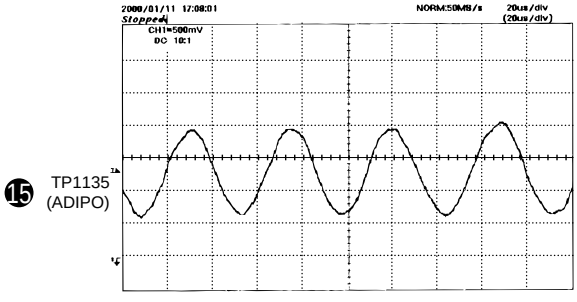
PLAY (Low reflection disc)



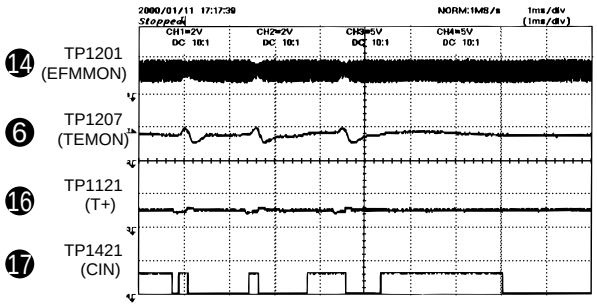
TOC READ (High reflection disc)



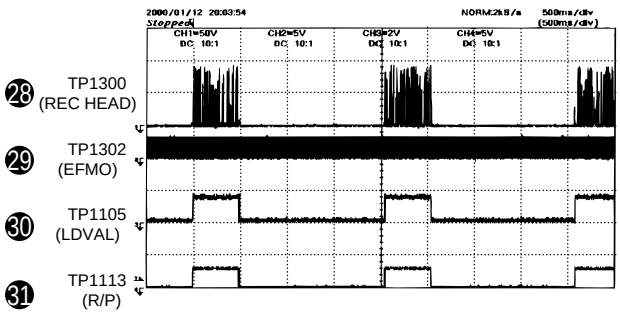
PLAY (Low reflection disc)



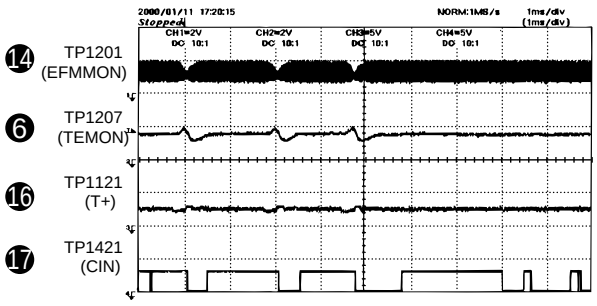
PLAY (Low reflection disc)



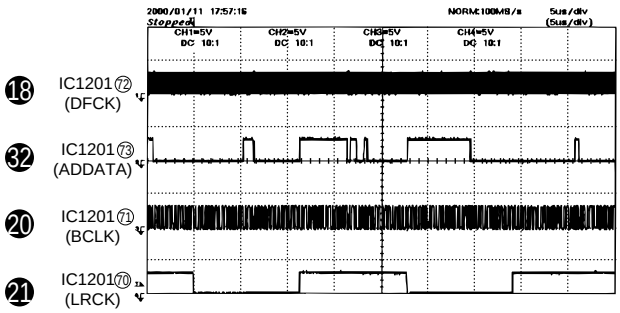
REC



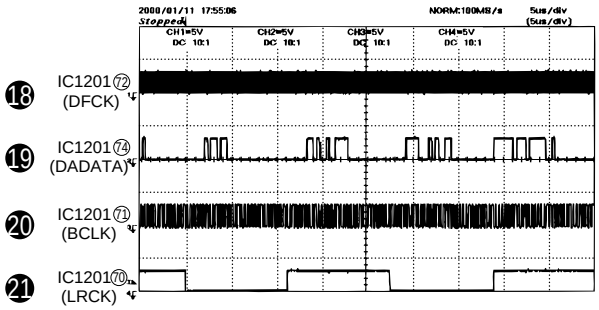
PLAY (High reflection disc)



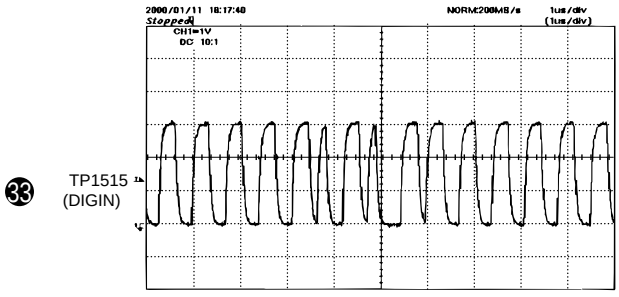
Analog REC



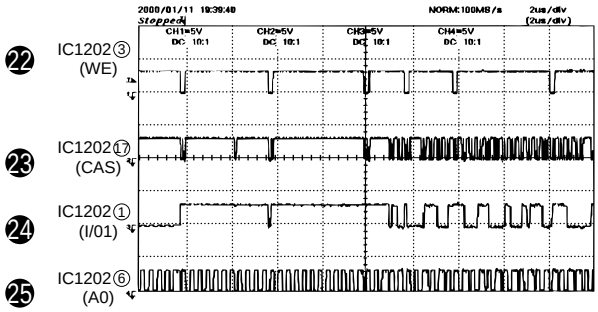
PLAY



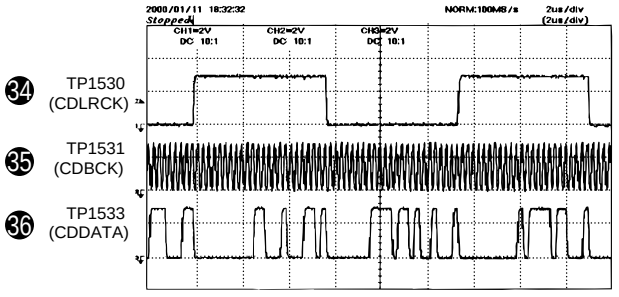
Digital REC



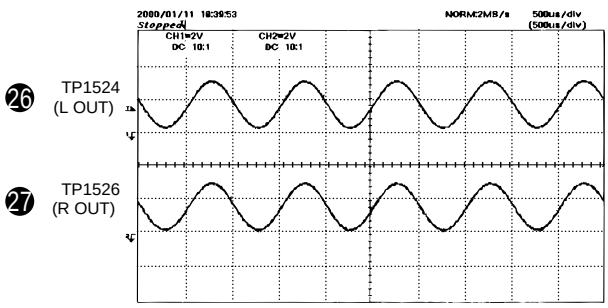
PLAY



Double speed REC



PLAY (1kHz 0dB)



TROUBLESHOOTING

CD SECTION

When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.
Remove the cabinet and follow the troubleshooting instructions.
"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

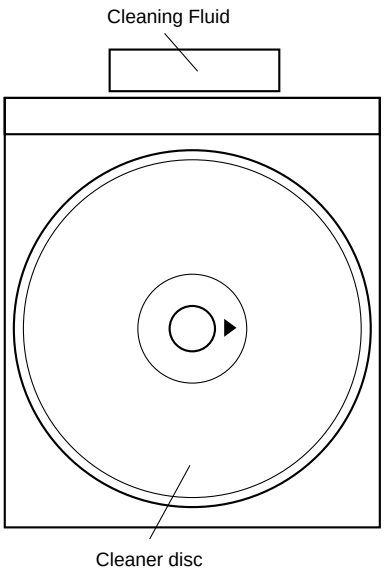
Turn off the power, and wipe the lens softly using a cleaning paper moistened with commercially available cleaning solution so as not to damage it.
Be careful not to touch the lens with bare hands.

Dust gradually accumulates on the objective lens during use, and it may degrade performance. To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

		Parts code
1.	CD optical pickup Lens cleaner disc	UDSKA0004AFZZ

HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continuous to turn, press the stop button.



CAUTION

- The CD lens cleaner should be effective for 30-50 operations, however if the brushes become worn out earlier then please the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rinse with clean water and seek medical advice.
- The CD cleaner disc must not be used on car CD players or on computer CD-ROM drives.
- All rights reserved. Unauthorised duplicating, broadcasting and renting this product is prohibited by law.

MD SECTION

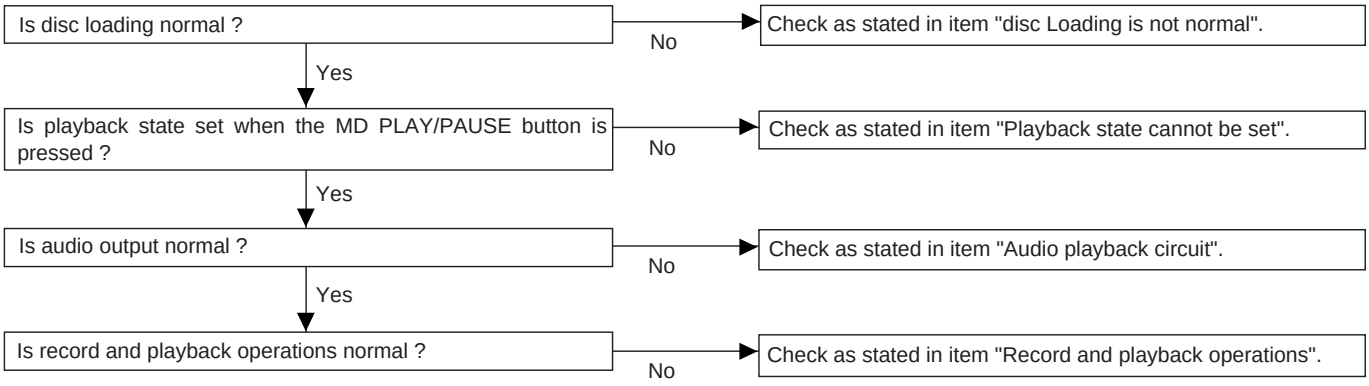
Preparations

If dusts and foreign materials are accumulated on the pickup lens, playback sounds can be skipped or the TOC (Table of Contents) can't be displayed. Clean the object lens and check the playback. When lens are dirty, do the following.

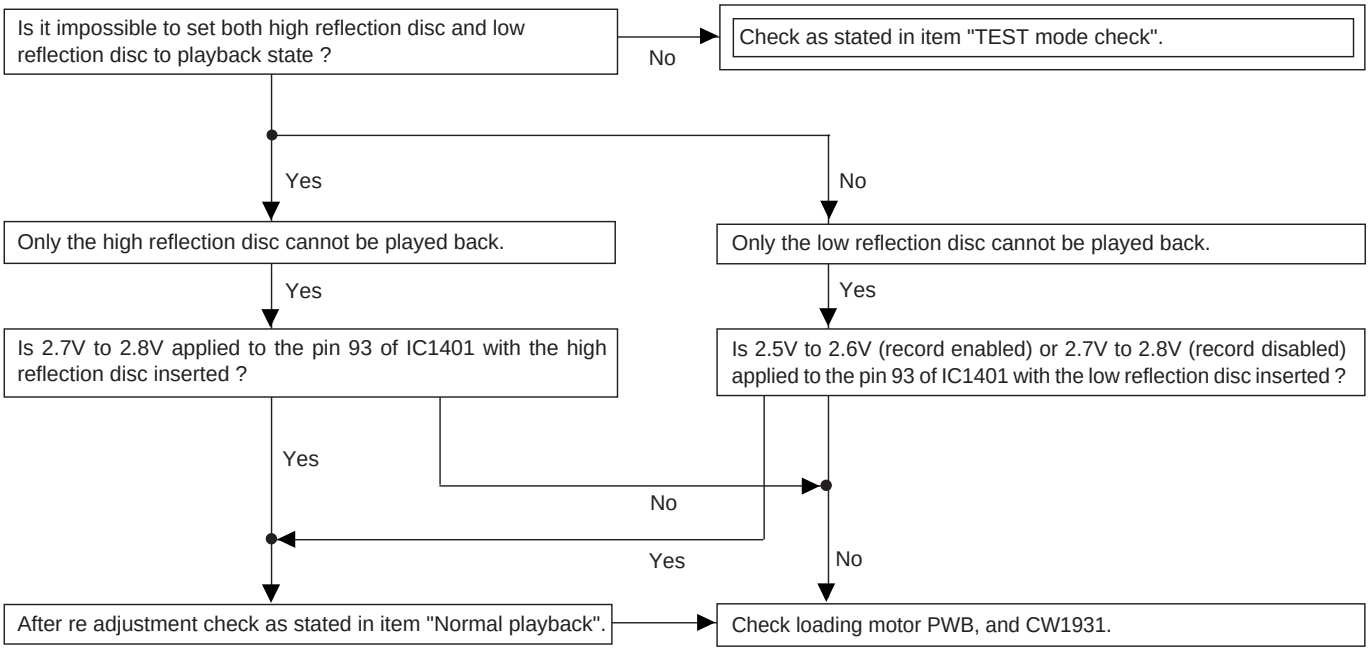
Turn off the power and wipe lens softly with a cleaning paper and a little cleaning solution so as not to damage it.
Do not touch lens with bare hands.

If the MD unit doesn't work

If the MD unit doesn't start after cleaning the pickup objects lens, check it as follows.

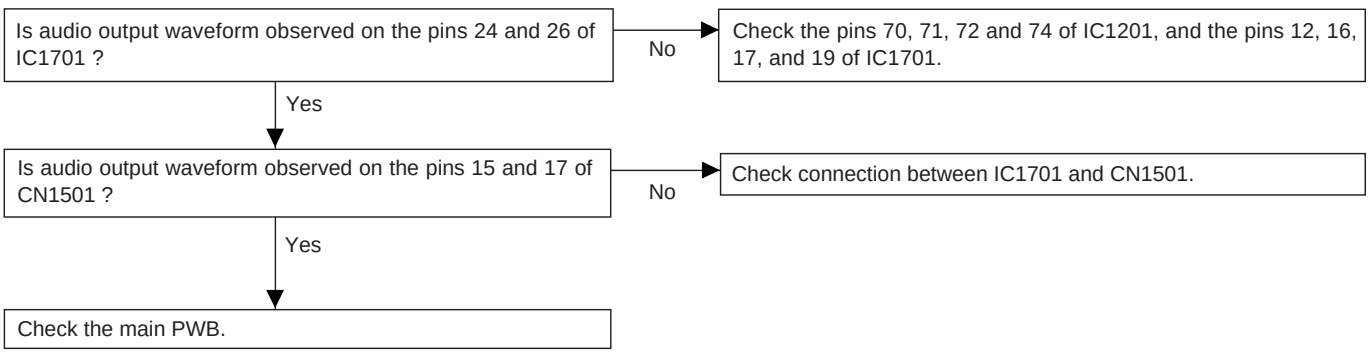

Is disc loading normal ?
No
Check as stated in item "disc Loading is not normal".
Yes
Is playback state set when the MD PLAY/PAUSE button is pressed ?
No
Check as stated in item "Playback state cannot be set".
Yes
Is audio output normal ?
No
Check as stated in item "Audio playback circuit".
Yes
Is record and playback operations normal ?
No
Check as stated in item "Record and playback operations".

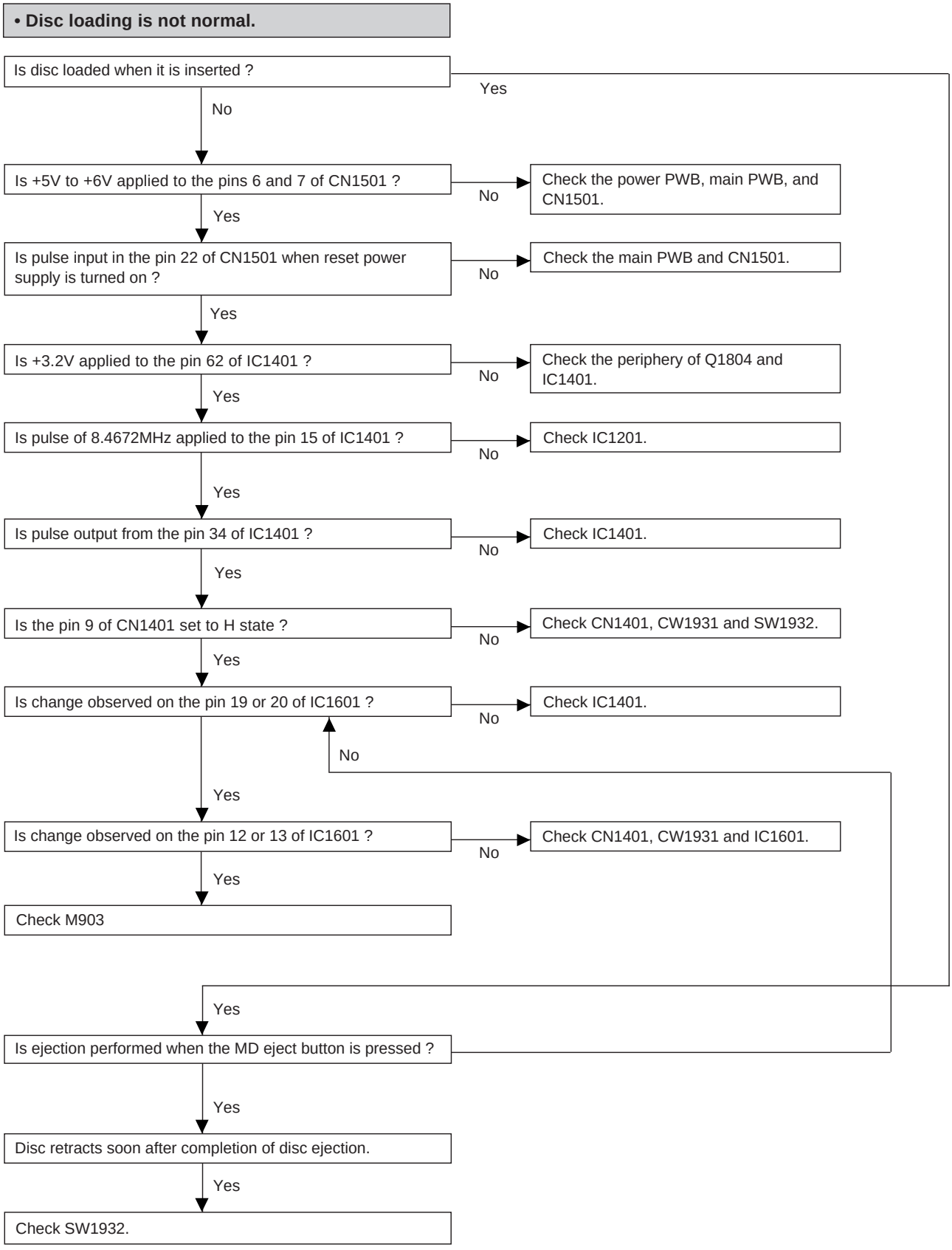
• Playback state cannot be set.


Is it impossible to set both high reflection disc and low reflection disc to playback state ?
No
Check as stated in item "TEST mode check".
Yes
No
Only the high reflection disc cannot be played back.
Only the low reflection disc cannot be played back.
Yes
Yes
Is 2.7V to 2.8V applied to the pin 93 of IC1401 with the high reflection disc inserted ?
Is 2.5V to 2.6V (record enabled) or 2.7V to 2.8V (record disabled) applied to the pin 93 of IC1401 with the low reflection disc inserted ?
Yes
No
Yes
No
After re adjustment check as stated in item "Normal playback".
Check loading motor PWB, and CW1931.

• Audio playback circuit

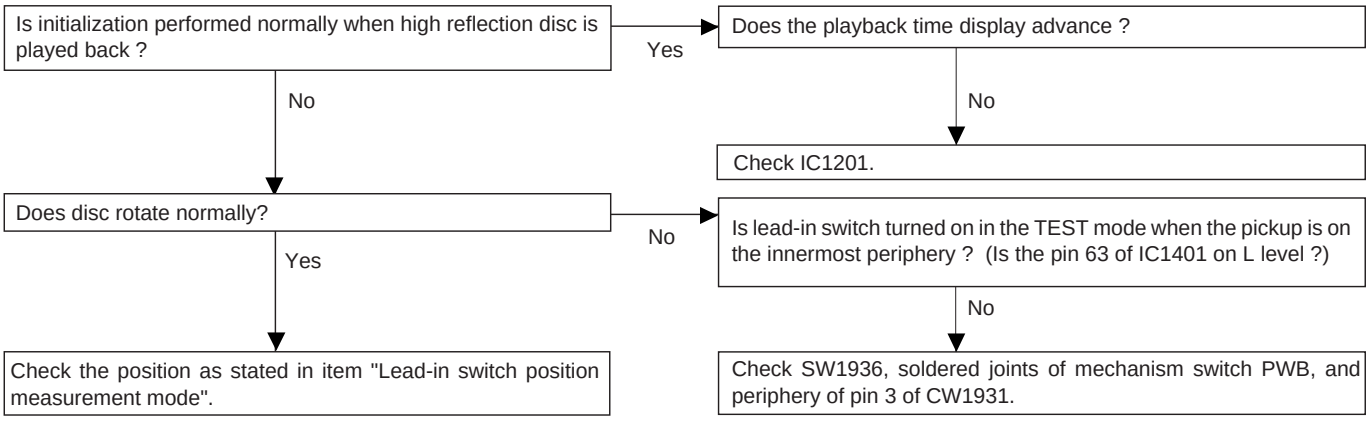
When sound is not output although the playback time display advances during playback in the normal mode.


Is audio output waveform observed on the pins 24 and 26 of IC1701 ?
No
Check the pins 70, 71, 72 and 74 of IC1201, and the pins 12, 16, 17, and 19 of IC1701.
Yes
Is audio output waveform observed on the pins 15 and 17 of CN1501 ?
No
Check connection between IC1701 and CN1501.
Yes
Check the main PWB.


• Disc loading is not normal.
Is disc loaded when it is inserted ?
Yes
No
Is +5V to +6V applied to the pins 6 and 7 of CN1501 ?
No
Check the power PWB, main PWB, and CN1501.
Yes
Is pulse input in the pin 22 of CN1501 when reset power supply is turned on ?
No
Check the main PWB and CN1501.
Yes
Is +3.2V applied to the pin 62 of IC1401 ?
No
Check the periphery of Q1804 and IC1401.
Yes
Is pulse of 8.4672MHz applied to the pin 15 of IC1401 ?
No
Check IC1201.
Yes
Is pulse output from the pin 34 of IC1401 ?
No
Check IC1401.
Yes
Is the pin 9 of CN1401 set to H state ?
No
Check CN1401, CW1931 and SW1932.
Yes
Is change observed on the pin 19 or 20 of IC1601 ?
No
Check IC1401.
No
Yes
Is change observed on the pin 12 or 13 of IC1601 ?
No
Check CN1401, CW1931 and IC1601.
Yes
Check M903
Yes
Is ejection performed when the MD eject button is pressed ?
Yes
Disc retracts soon after completion of disc ejection.
Yes
Check SW1932.

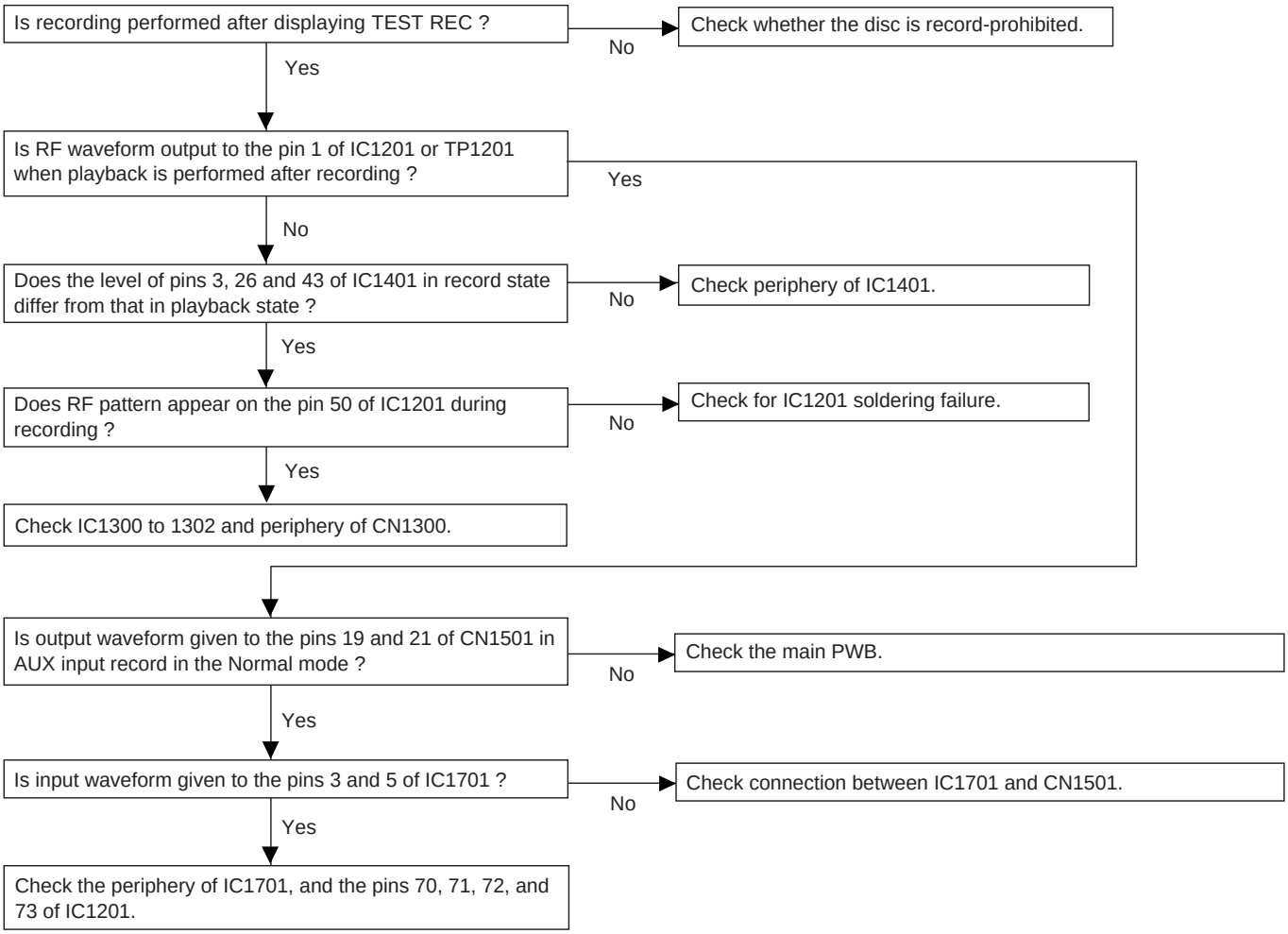
• Normal playback

When it has been confirmed that EEPROM value is normal in the TEST mode


Is initialization performed normally when high reflection disc is played back ?
Yes
Does the playback time display advance ?
No
No
Check IC1201.
Does disc rotate normally?
No
Is lead-in switch turned on in the TEST mode when the pickup is on the innermost periphery ? (Is the pin 63 of IC1401 on L level ?)
Yes
No
Check the position as stated in item "Lead-in switch position measurement mode".
Check SW1936, soldered joints of mechanism switch PWB, and periphery of pin 3 of CW1931.

• Record and playback operations

Insert the low reflection disc, and after verifying the audio output in the normal mode playback set the record/playback TEST mode.


Is recording performed after displaying TEST REC ?
No
Check whether the disc is record-prohibited.
Yes
Is RF waveform output to the pin 1 of IC1201 or TP1201 when playback is performed after recording ?
Yes
No
Does the level of pins 3, 26 and 43 of IC1401 in record state differ from that in playback state ?
No
Check periphery of IC1401.
Yes
Does RF pattern appear on the pin 50 of IC1201 during recording ?
No
Check for IC1201 soldering failure.
Yes
Check IC1300 to 1302 and periphery of CN1300.
Is output waveform given to the pins 19 and 21 of CN1501 in AUX input record in the Normal mode ?
No
Check the main PWB.
Yes
Is input waveform given to the pins 3 and 5 of IC1701 ?
No
Check connection between IC1701 and CN1501.
Yes
Check the periphery of IC1701, and the pins 70, 71, 72, and 73 of IC1201.

Check in the test mode

• The spindle motor does not rotate.

Is waveform output from the pins 25 of IC1201 in the step 4 of AUTO auxiliary adjustment mode of TEST mode ?

No → Check the pins 25 of IC1201, soldering of peripheral circuit, and parts.

Yes ↓

Is waveform output from the pins 9 and 10 of IC1601 and the pins 4 and 5 of CN1401 ?

No → Check IC1601, CN1402, and soldering of mechanism switch PWB.

Yes ↓

Replace with a spindle motor (complete).

• The sled motor does not rotate.

Do the pins 23 of IC1201 change with the ►► / ◄◄ button ?

Yes → Check the waveform of pins 23 of IC1201, peripheral parts, and soldering.

No ↓

Do the pins 14 and 15 of IC1601 and the pins 1 and 2 of CN1401 change with the ►► / ◄◄ button ?

No → Check IC1601 and soldering of CN1401

Yes ↓

Does voltage of the + and - terminals on the sled motor change with the ►► / ◄◄ button ?

No → Check the soldering connected to the sled motor and for disconnection.

Yes ↓

Replace the sled motor.

FUNCTION TABLE OF IC

ICU01 VHiLC75341M-1: Audio Processor (LC75341M)

Pin No.	Terminal Name	Function
1	DI	Serial data and clock input terminal for control.
2	CE	Chip enable terminal. When changing from "H" to "L", data is written in the internal latch and each analog switch is turned on. Data transmission is enabled at "H" level.
3	VSS	Ground terminal.
4	LOUT	Bass band filter construction capacitor/resistor connection terminal and bass/treble output terminal.
5	LBASS	Bass band filter capacitor and resistor connection terminal.
6	LTRE	Treble band filter capacitor connection terminal.
7	LIN	L-CH signal input terminal.
8	LSEL0	Input selector output terminal.
9-12 (11*)	L4-L1	Input signal terminal.
13-16 (14*)	R1-R4	Input signal terminal.
17	RSEL0	Input selector output terminal.
18	RIN	R-CH signal input terminal.
19	RTRE	Treble band filter capacitor connection terminal.
20	RBASS	Bass band filter capacitor and resistor connection terminal.
21	ROUT	Bass band filter capacitor/resistor connection terminal and bass/treble output terminal.
22	Vref	0.5 × VDD voltage generation section for analog ground. Connect a capacitor of 10µF or more between Vref and AVSS (VSS) as a countermeasure against the power supply ripple.
23	VDD	Power supply terminal.
24	CL	Serial data and clock input terminal for control.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

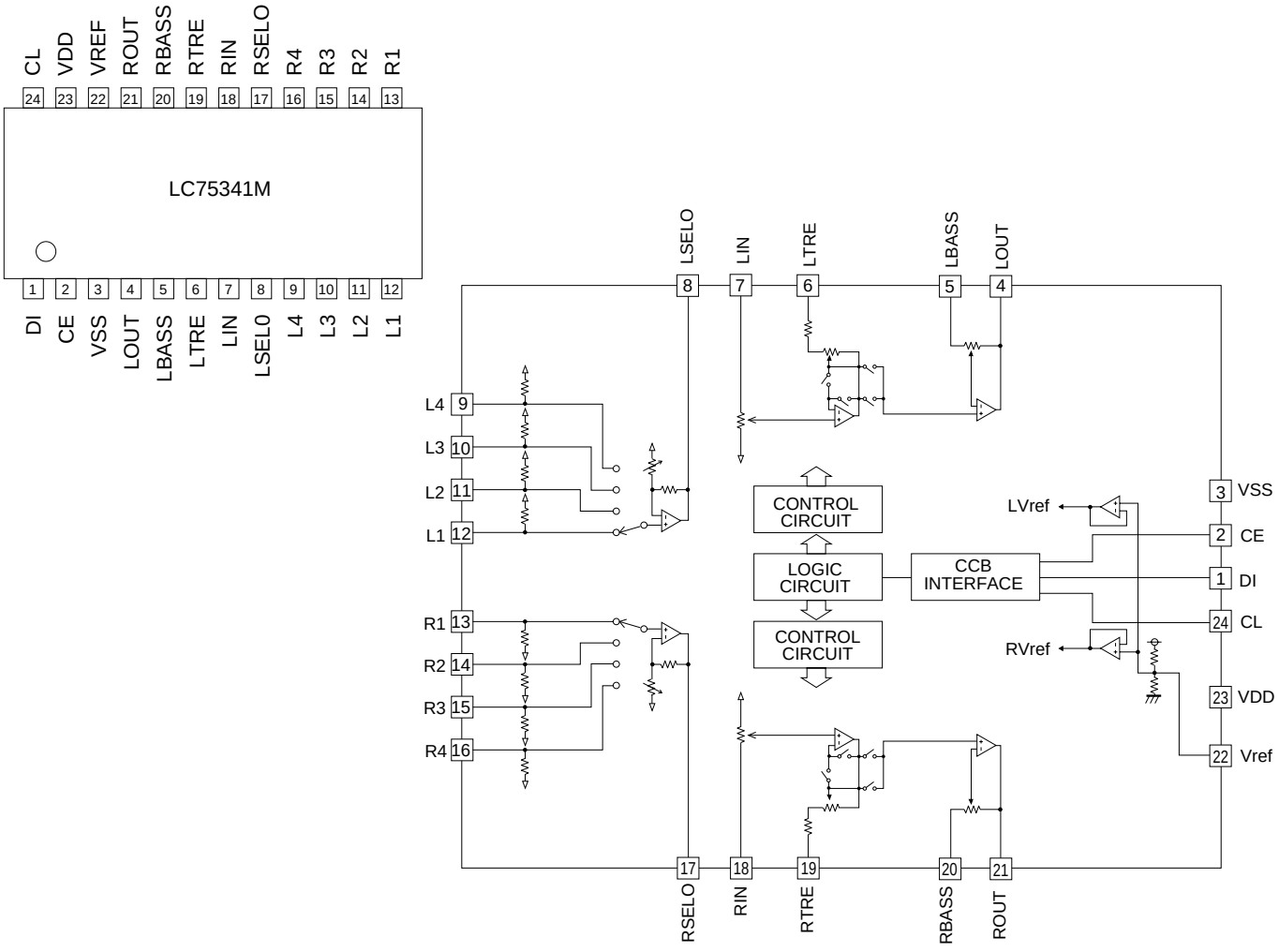


Figure 86 BLOCK DIAGRAM OF IC

ICA100 RH-iX2815AFZZ: 7th Order ⊿Σ Modulation Conversion LSI (IX2815AF)

Pin No.	Port Name	Input/Output	Function
1	VDDL	Input	L channel digital output section power terminal
2	OUTL (+)	Output	L channel forward output terminal
3	OUTL (–)	Output	L channel reverse output terminal
4	GNDD	—	Digital output section ground terminal
5	OUTR (–)	Output	R channel reverse output terminal
6	OUTR (+)	Output	R channel forward output terminal
7	VDDR	Input	R channel digital output section power terminal
8	VDDX	Input	Oscillation section power terminal
9	XI	Input	Quartz oscillator connection terminal. Clock necessary for the system is generated.
10	XO	Output	Quartz oscillator connection terminal. Clock necessary for the system is generated.
11	GNDX	—	Oscillation section ground terminal
12*	MCK	Output	System clock output terminal
13	TEST	Input	Test terminal. As usual, it is used at "L".
14	NFR1 (+)	Input	R channel forward signal feedback input terminal
15	NFR2 (–)	Input	R channel reverse signal feedback input terminal
16	GNDA	—	Analog ground terminal for AD converter
17	Rch IN	Input	R channel analog input terminal
18	Rch Vref	Input	Reference voltage terminal for R channel
19	Lch Vref	Input	Reference voltage terminal for L channel
20	Lch IN	Input	L channel analog input terminal
21	RESET	Input	Reset terminal. It is reset with "L".
22	NFL2 (–)	Input	L channel reverse signal feedback input terminal
23	NFL1 (+)	Input	L channel forward signal feedback input terminal
24	VDDA	Input	Analog current terminal for AD converter

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

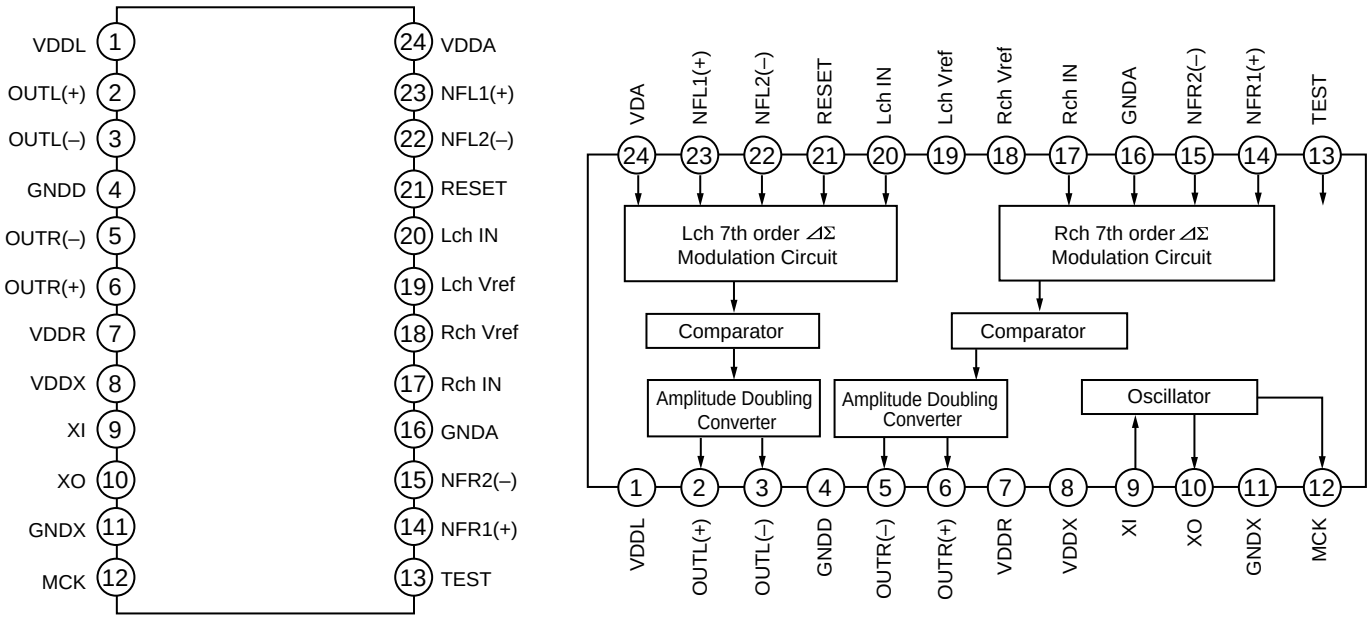


Figure 87 BLOCK DIAGRAM OF IC

ICD01 RH-iX0381AWZZ: System Microcomputer (IX0381AW) (1/2)

Pin No.	Terminal Name	Port Name	Input/Output	Remarks
1	P77/AN7	SD_ST_IN	Input (A/D Input)	Tuner tuning and stereo receiver signal detection. Not tuned: "H", SD input: "M", ST: "L"
2	P76/AN6	KEY1	Input (A/D Input)	A/D KEY input 1.
3	P75/AN5	KEY2	Input (A/D Input)	A/D KEY input 2.
4	P74/AN4	KEY3	Input (A/D Input)	A/D KEY input 3.
5	P73/AN3	P-DWN	Output	Vref voltage cut when detecting the power failure at SYS-STOP. "H"= Normal state, "L"= Power failure
6	P72/AN2	TUNER_SM	Input (A/D Input)	Tuning level detection. Output: "L"
7	P71/AN1	PROTECT	Input (A/D Input)	Ignored for 500msec after detecting error and turning on the power. Power is turned off when the input voltage is 2.5V or below.
8	P70/AN0	SPAN	Input (A/D Input)	Input: "L"
9	PB3	POWER	Output	Control of connection to or disconnection of the primary side power supply. "H"= Connection, "L"= Disconnection
10	PB2/DA	H.P_SW	Input	Switch for the headphones connection detection. "H"= Headphones, "L"=Speaker
11	P57/$\overline{\text{SRDY3}}$/AN15	MD_DISC_IN	Input (A/D Input)	Detects the MD disc at the exit section inside the lid. 3.76V or below= Exists at the exit. Over 3.76V= Not exist at the exit.
12	P56/SCLK3/AN14	CD_SENS_A	Input	Clarion mechanism disc optical sensor A. "H"= Shut out by the disc, "L"= Not shut out
13	P55/SOUT3/AN13	CD_SENS_B	Input	Clarion mechanism disc optical sensor B. "H"= Shut out by the disc, "L"= Not shut out
14	P54/SIN3/AN12	CD_SENS_C	Input	Clarion mechanism disc optical sensor C. "H"= Shut out by the disc, "L"= Not shut out
15	P53/$\overline{\text{SRDY2}}$/AN11	MD_LOAD_SW	Input	MD LOAD SW detection. "L" → "H"= DISC IN
16	P52/SCLK2/AN10	MD_ST	Output	1. Beginning of the CD track: 20Ms. "H" output. 2. MD ON (RESET): 100mS. "H" output.
17	P51/SOUT2/AN9	MD_SERACH	Output	CD play: "L" (including CUEW/REVIW) Others: "H"
18	P50/SIN2/AN8	MD_RESET	Output	MD RESET output.
19	P67/$\overline{\text{SRDY1}}$/$\overline{\text{CS}}$/SCLK12	MD_D_STB	Input	MD strobe input.
20	P66/SCLK11	MD_D_SCK	Output	MD clock output.
21	P65/SOUT1	MD_KDATA	Output	MD KEY data.
22	P64/SIN1	MD_DATA	Input	MD data input.
23	P63/CNTR1	CD_BUS3	Input/Output	Data input/output terminal for CD interface 3. "L" output fixed except CD function
24	P62/CNTR0	CD_BUS2	Input/Output	Data input/output terminal for CD interface 2. "L" output fixed except CD function
25	P61/PWM	CD_BUS1	Input/Output	Data input/output terminal for CD interface 1. "L" output fixed except CD function
26	P60	CD_BUS0	Input/Output	Data input/output terminal for CD interface 0. "L" output fixed except CD function
27	P47/T3OUT	CD_BUCK	Output	Clock output terminal for CD interface. "L" output fixed except CD function
28	P46/T1OUT	CD_CCE	Output	Chip enable output terminal for CD interface. "L" output fixed except CD function
29	P45/INT1/ZCR	CD_CHK_SW	Input	Clarion mechanism disc chucking detection SW. "L"= Non-chucking, "H"= Chucking completed
30	P44/INT4	D_CONT	Input	"L" fixed.
31	P43/INT3	IC_CLK	Output	External control IC related clock. SANYO C bus, input/output expander.
32	P42/INT2	REMOCON_IN	Input	Remote control input.
33	P41	IC_DI	Output	External control IC related DATA output. SANYO C bus, input/output expander.
34	P40/INT0	SYS_STOP	Input	Microcomputer backup detection. "H"= Normal state. "H" → "L": Power failure detection
35	$\overline{\text{RESET}}$	RESET	Input	Microcomputer reset terminal. "L" → "H": Microcomputer reset
36	PB1/XCIN	IC_CE	Output	External control IC related chip enable output.SANYO CCB bus
37	PB0/XCOUT	IC_DO	Input	External control IC related DATA output.SANYO CCB bus

ICD01 RH-iX0381AWZZ: System Microcomputer (IX0381AW) (2/2)

Pin No.	Terminal Name	Port Name	Input/Output	Remarks
38	XIN	X_IN	Input	Reference oscillation input. 8.38MHz crystal connection
39	XOUT	X_OUT	Output	Reference oscillation output. 8.38MHz crystal connection
40	VSS	VSS	—	Connected to GND.
41	P27	IC_LCK2	Output	External control IC related latch clock output. For input/output expander No.2
42	P26	TU_MUTE	Output	Tuner MUTE output. "H"= MUTE, "L"= No MUTE
43	P25	DR_OP_IN	Input	CD/MD door OPEN detection switch. "H"= Except "L", "L"= CD/MD door OPEN is completed.
44	P24	DR_CL_IN	Input	CD/MD door CLOSE detection switch. "H"= Except "L", "L"= CD/MD door OPEN is completed.
45	P23/DIG19	IC_LCK1	Output	External control IC related latch clock output. For input/output expander No. 1.
46	P22/DIG18	CD_RESET	Output	CD RESET output. "H"= Except CD function. "H" → "L": Reset operation
47	P21/DIG17	TIMER_LED	Output	Timer stand-by LED output. ON: "H", OFF: "L"
48	P20/DIG16	DIG1	Output	Digit output for FL No. 1
49-56	P17/DIG15-P10/DIG08	DIG2-DIG9	Output	Digit output for FL No. 2 ~ No. 9
57-60	P07/DIG07-P04/DIG04	DIG10-DIG13	Output	Digit output for FL No. 10 ~ No. 13
61-64	P03/SEG35-P00/SEG32	SEG36-SEG33	Output	Segment output for FL No. 36 ~ No. 33
65-72	P37/SEG31-P30/SEG24	SEG32-SEG25	Output	Segment output for FL No. 32 ~ No. 25
73-80	P97/SEG23-P90/SEG16	SEG24-SEG17	Output	Segment output for FL No. 24 ~ No. 17
81-88	P87/SEG15-P80/SEG08	SEG16-SEG9	Output	Segment output for FL No. 16 ~ No. 9
89,90	PA7/SEG07,PA6/SEG06	SEG8,SEG7	Output	Segment output for FL No. 8, No. 7
91	VCC	VCC	5V	Power supply (+5V).
92-97	PA5/SEG05-PA0/SEG00	SEG6-SEG1	Output	Segment output for FL No. 6 ~ No. 1
98	VEE	VEE	Power Input	Pull-down power supply for FL
99	AVSS	AVSS	—	A/D conversion section reference GND.
100	VREF	VREF	5V Input	A/D conversion section reference power supply input (+5V).

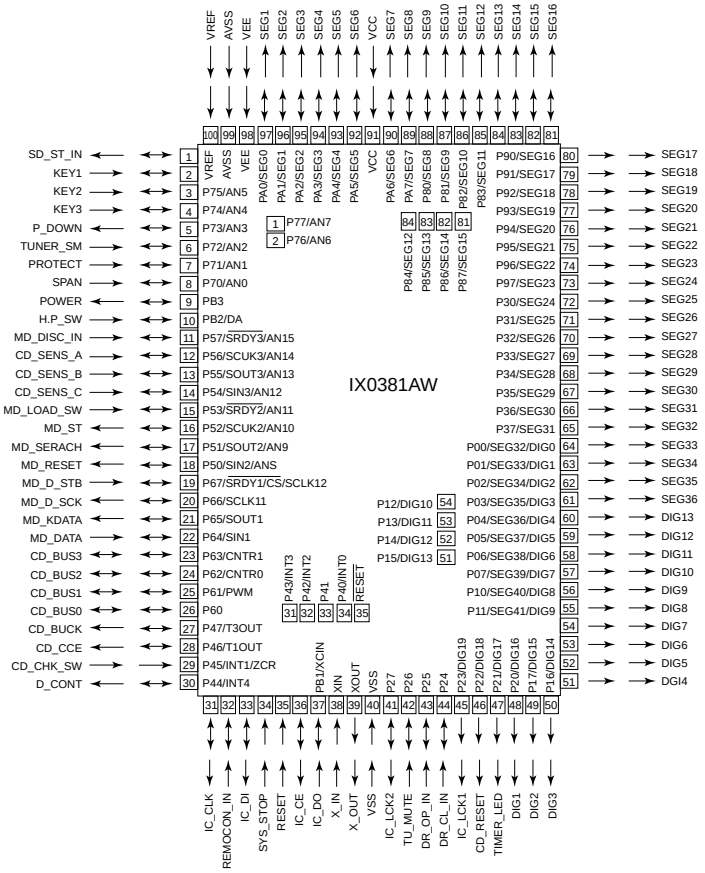


Figure 89 BLOCK DIAGRAM OF IC

SD-NX10H

ICD02 VHiBU2092F/-1: Input/Output Expander (BU2092F)

Pin No.	Terminal Name	Port Name	Function
1	VSS	GND	GND
2	DATA	DI	Serial data input.
3	CLOCK	CLK	Data shift clock.
4	LCK	LCK2	Data latch clock.
5	Q0	LINE_MUTE	Line mute. "L"= MUTE ON, "H"= MUTE OFF
6	Q1	CD_FUNC	CD function. "H"= Except CD function, "L"= CD function
7*	Q2	SP_RLY	Speaker relay. "H"= Relay ON, "L"=Relay OFF
8	Q3	SUR_ON/OFF	Surround. "H"= Surround OFF, "L"= Surround ON
9*	Q4	FAN_MOTOR	Cooling fan motor control. "H"= Motor run, "L"= Motor stop
10	Q5	SYS_MUTE	System MUTE. "H"= MUTE OFF, "L"= MUTE ON
11*	Q6	+B_CONT	1-bit section power control. "H"= Power ON, "L"= Power OFF
12*	Q7	A/D_RESET	1-bit ⊿Σ IC reset control. "H"= Normal operation, "H" → "L" → "H"= Reset
13,14	Q8,Q9	DR_M+,DR_M-	CD/MD lid motor control. Q8 Q9 Q8 Q9 L L Brake L H Close SW H L Open SW H H Not used
15,16	Q10,Q11	LOAD_M+, LOAD_M-	CD DISC LOADING motor control. Q10 Q11 Q10 Q11 L L Free L H LOAD H L EJECT H H Brake
17	$\overline{OE}$	GND	Output enable.
18	VDD	VDD	Power supply +5V

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

ICD03 VHiBU2092F/-1: Input/Output Expander (BU2092F)

Pin No.	Terminal Name	Port Name	Function
1	VSS	GND	GND
2	DATA	DI	Serial data input.
3	CLOCK	CLK	Data shift clock.
4	LCK	LCK1	Data latch clock.
5	Q0	LED_RED	Red of three-colored LED. "H"= OFF, "L"= ON
6	Q1	LED_GREEN	Green of three-colored LED. "H"= OFF, "L"= ON
7	Q2	LED_BLUE	Blue of three-colored LED. "H"= OFF, "L"= ON
8	Q3	LED_SP	MD normal mode, Green. "H"= OFF, "L"= ON
9	Q4	LED_LP2	MD 2 times mode, Blue. "H"= OFF, "L"= ON
10	Q5	LED_LP4	MD 4 times mode, Orange: "H"= OFF, "L"= ON
11	Q6	LED_SLEEP	SLEEP indication LED. "H"= OFF, "L"= ON
12*	Q7	LED_AUX	AUX function indication LED. "H"= OFF, "L"= ON
13*	Q8	LED_TUNER	TUNER function indication LED. "H"= OFF, "L"= ON
14*	Q9	LED_CD	CD function indication LED. "H"= OFF, "L"= ON
15	Q10	LED_MD	MD function indication LED. "H"= OFF, "L"= ON
16	Q11	LED_MONO	MONO indication LED. "H"= OFF, "L"= ON
17	$\overline{OE}$	GND	Output enable.
18	VDD	VDD	Power supply +5V

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

ICT21 VHiLC72722/-1: RDS Decorder (LC72722)

Pin No.	Port Name	Input/Output	Function
1	VREF	Output	Reference voltage output (Vdda/2)
2	MPXIN	Input	Baseband (multiplexed) signal input
3	VDDA	Input	Analog power supply (+5V)
4	VSSA	—	Analog ground
5	FLOUT	Output	Subcarrier output (filter output)
6	CIN	Input	Subcarrier input (comparator input)
7	T1	Input	Test input (This pin must always be connected to ground.)
8	T2	Input	Test input (stand-by control) 0: Normal operation 1: stand-by state (crystal oscillator stopped)
9*	T3 (RDCL)	Input/Output (*)	Test I/O (RDS clock output)
10*	T4 (RDDA)	Input/Output (*)	Test I/O (RDS data output)
11*	T5 (RSFT)	Input/Output (*)	Test I/O (soft-decision control data output)
12	XOUT	Output	Crystal oscillator output (4.332/8.664 MHz)
13	XIN	Input	Crystal oscillator input (external reference signal input)
14	VDDD	Input	Digital power supply (+5V)
15	VSSD	—	Digital ground
16*	T6 (ERROR/57K/TP/BE1)	Input/Output (*)	Test I/O (error status, regenerated carrier, TP, error block count outputs)
17*	T7 (CORREC/ARI-ID/TA/BE0)	Input/Output (*)	Test I/O (error correction status, SK detection, TA, error block count outputs)
18*	SYNC	Input/Output (*)	Block synchronization detection output
19*	RDS-ID	Output	RDS detection output
20	DO	Output	Data output
21	CL	Input	Clock input — Serial data interface (CCB)
22	DI	Input	Data input — Serial data interface (CCB)
23	CE	Input	Chip enable — Serial data interface (CCB)
24	SYR	Input	Synchronization and RAM address reset (active high)

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.
(*): Normally the output pin. Used as an I/O pin in test mode, which is not available to user applications.

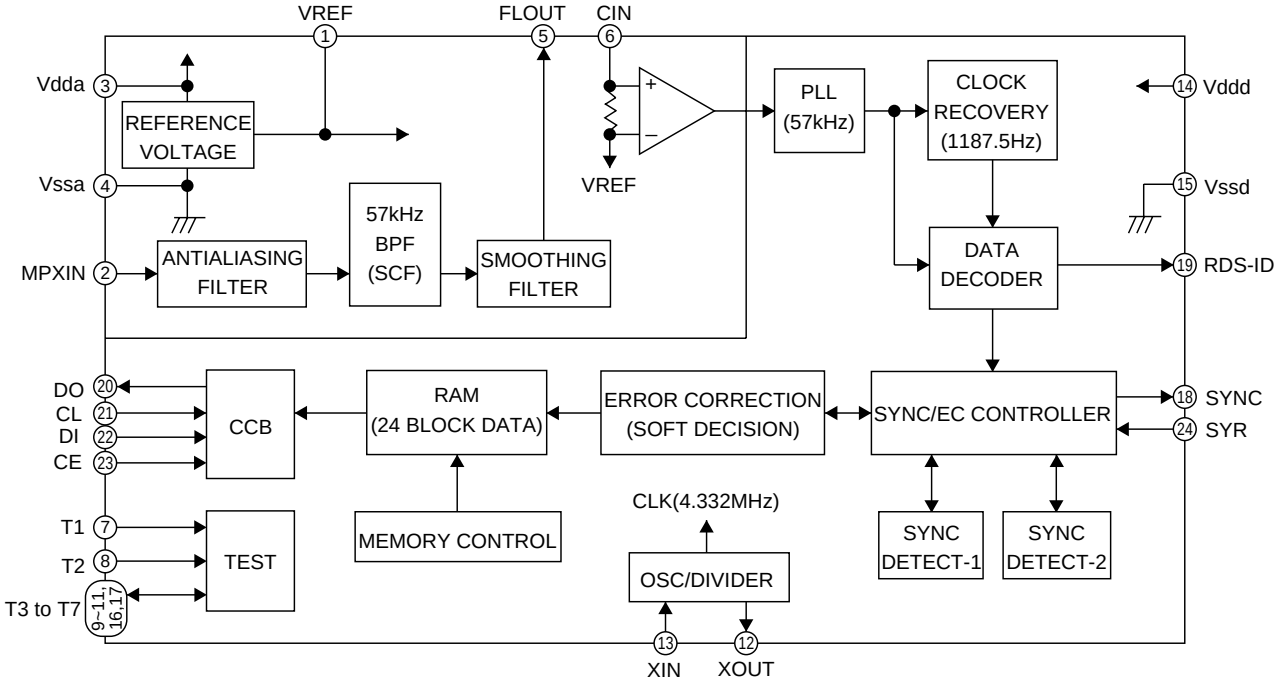


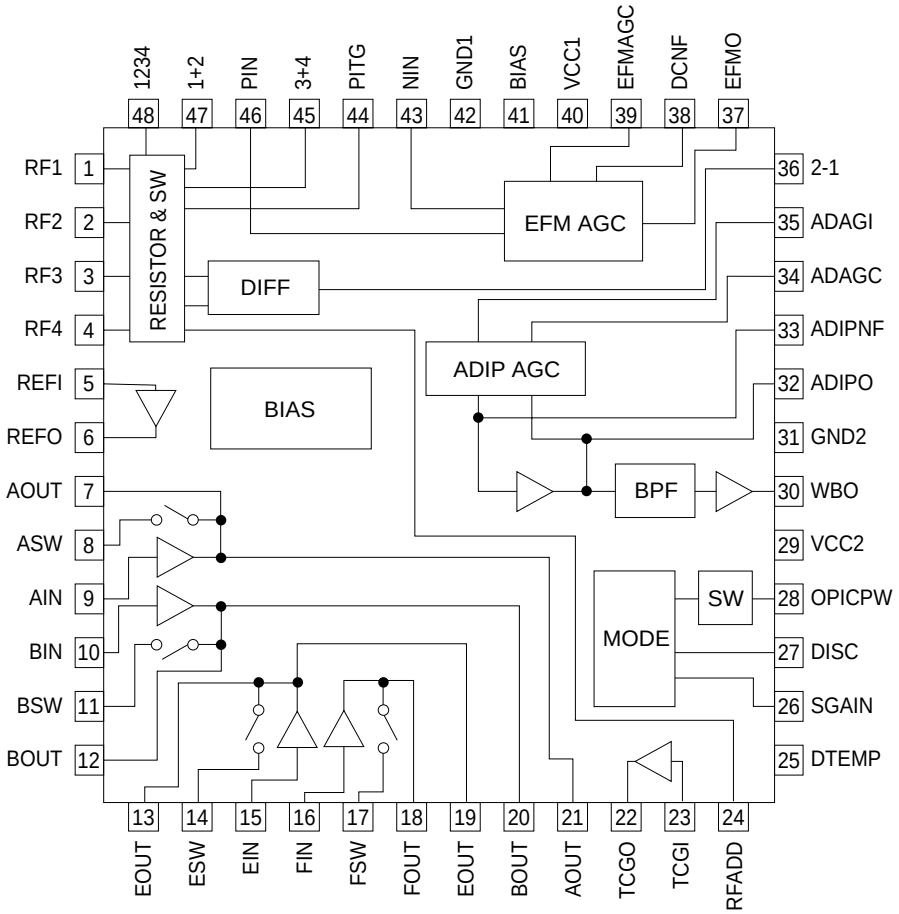
Figure 91 BLOCK DIAGRAM OF IC

IC1101 VHiiR3R58M/-1: RF Signal Processor (IR3R58M)

Pin No.	Terminal Name	Function
1	RF1	RF signal input terminal 1. Input of RF signal output of pickup
2	RF2	RF signal input terminal 2. Input of RF signal output of pickup
3	RF3	RF signal input terminal 3. Input of RF signal output of pickup
4	RF4	RF signal input terminal 4. Input of RF signal output of pickup
5	REFI	Reference voltage amplifier input terminal
6	REFO	Reference voltage amplifier output terminal
7	AOUT	Output terminal 1 of signal amplifier for servo (focus servo system)
8	ASW	Output terminal 2 of signal amplifier for servo (focus servo system)
9	AIN	Reverse input terminal of signal amplifier for servo (focus servo system)
10	BIN	Reverse input terminal of signal amplifier for servo (focus servo system)
11	BSW	Output terminal 2 of signal amplifier for servo (focus servo system)
12	BOUT	Output terminal 1 of signal amplifier for servo (focus servo system)
13	EOUT	Output terminal 1 of signal amplifier for servo (tracking servo system)
14	ESW	Output terminal 2 of signal amplifier for servo (tracking servo system)
15	EIN	Reverse input terminal of signal amplifier for servo (tracking servo system)
16	FIN	Reverse input terminal of signal amplifier for servo (tracking servo system)
17	FSW	Output terminal 2 of signal amplifier for servo (tracking servo system)
18	FOUT	Output terminal 1 of signal amplifier for servo (tracking servo system)
19	EOUT	Output terminal 1 of signal amplifier for servo (tracking servo system)
20	BOUT	Output terminal 1 of signal amplifier for servo (focus servo system)
21	AOUT	Output terminal 1 of signal amplifier for servo (focus servo system)
22	TCGO	Group mode: Track cross detection signal amplifier output terminal
23	TCGI	Group mode: Track cross detection signal amplifier input terminal
24	RFADD	Resistance addition output terminal of RF1 - RF4
25	DTEMP	Chip temperature detection terminal
26	SGAIN	Switch section control terminal of amplifier for servo
27	DISC	Pit mode, groove mode selecting control terminal
28*	OPICPW	Power output terminal for OPIC
29	VCC2	Power supply terminal of digital section and power section
30*	WBO	Comparator output terminal for binary coded ADIP signal
31	GND2	GND terminal of digital section and power section
32	ADIPO	ADIP signal pre-amplifier output terminal
33*	ADIPNF	ADIP signal AGC amplifier output terminal
34	ADAGC	Smoothing capacitor connection terminal for ADIP signal AGC
35	ADAGI	ADIP signal AGC amplifier input terminal
36	2-1	Differential signal of RF1, RF2
37	EFMO	RF signal AGC amplifier output terminal
38	DCNF	Smoothing capacitor connection terminal for RF signal AGC amplifier reference voltage
39	EFMAGC	Smoothing capacitor connection terminal for RF signal AGC
40	VCC1	Analog section power supply terminal
41	BIAS	Bias input terminal
42	GND1	Analog section GND terminal
43	NIN	RF signal AGC amplifier reverse input terminal
44	PITG	Pit mode: Ground terminal
45	3 + 4	Groove mode: Resistance addition output terminal of RF3 and RF4
46	PIN	RF signal AGC amplifier non-reverse input terminal
47	1 + 2	Groove mode: Resistance addition output terminal of RF1 and RF2
48	1234	Pit mode: Resistance addition output terminal of RF1 - RF4

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1101 VHiiR3R58M/-1: RF Signal Processor (IR3R58M)



IC1201 VHiLR37816A-1: Endec/Atrac (LR37816A)

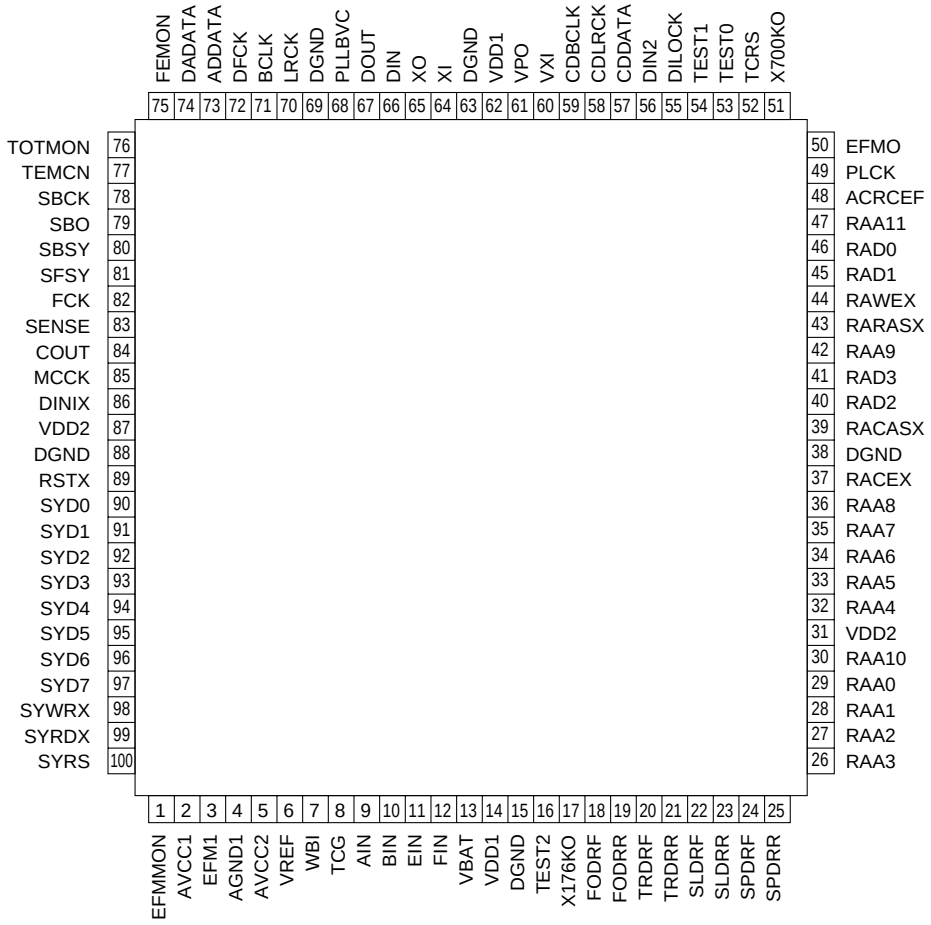


Figure 93 BLOCK DIAGRAM OF IC

IC1201 VHiLR37816A-1: Endec/Atrac (LR37816A) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1*	EFMMON	Output	EFM monitor output
2	AVCC1	Input	Analog power supply (for EFM system 8AD, 8DA)
3	EFMI	Input	EFM signal input from RF amplifier
4	AGND1	—	Analog GND
5	AVCC2	Input	Analog power supply (for servo system, ADIP system 1bit AD)
6	VREF	Input	Reference voltage input for RF amplifier
7	WBI	Input	ADIP wobble signal
8	TCG	Input	Track cross signal
9	AIN	Input	Focus error signal A
10	BIN	Input	Focus error signal B
11	EIN	Input	Tracking error signal E
12	FIN	Input	Tracking error signal F
13	VBAT	Input	Power voltage detection signal for constant voltage servo
14	VDD1	Input	Internal digital power supply
15	DGND	—	Digital GND
16	TEST2	Input	Input for test. Connected to GND if used normally
17*	X176KO	Output	Clock output. f=176.4kHz (4fs)
18*	FODRF	Output	Focus servo forward output. PWM.
19	FODRR	Output	Focus servo reverse output. PWM.
20*	TRDRF	Output	Tracking servo forward output. PWM.
21	TRDRR	Output	Tracking servo reverse output. PWM.
22*	SLDRF	Output	Slide servo forward output. PWM.
23	SLDRR	Output	Slide servo reverse output. PWM.
24*	SPDRF	Output	Spindle servo forward output. PWM.
25	SPDRR	Output	Spindle servo reverse output.
26	RAA3	Output	Address output to external D-RAM. ADR3
27	RAA2	Output	Address output to external D-RAM. ADR2
28	RAA1	Output	Address output to external D-RAM. ADR1
29	RAA0	Output	Address output to external D-RAM. ADR0 (LSB)
30*	RAA10	Output	Address output to external D-RAM. ADR10 (MSB)
31	VDD2	Input	Power supply for interface
32	RAA4	Output	Address output to external D-RAM. ADR4
33	RAA5	Output	Address output to external D-RAM. ADR5
34	RAA6	Output	Address output to external D-RAM. ADR6
35	RAA7	Output	Address output to external D-RAM. ADR7
36	RAA8	Output	Address output to external D-RAM. ADR8
37	RAOEX	Output	Data output enable signal output to external D-RAM
38	DGND	—	Digital GND
39	RACASX	Output	Column address strobe signal output to external D-RAM
40	RAD2	Input/Output	Data input and output with external D-RAM. D2
41	RAD3	Input/Output	Data input and output with external D-RAM. D3 (MSB)
42	RAA9	Output	Address output to external D-RAM. ADR9
43	RARASX	Output	Low address strobe signal output to external D-RAM
44	RAWEX	Output	Data write enable signal output to external D-RAM
45	RAD1	Input/Output	Data input and output with external D-RAM. D1
46	RAD0	Input/Output	Data input and output with external D-RAM. D0 (LSB)
47*	RAA11	Output	Address output to external D-RAM. ADR11 (MSB 64 Mbit)
48*	ACRCER	Output	CRC error flag monitor output of ADIP
49*	PLCK	Output	Playback mode: EFM PLL clock output
50	EFM0	Output	Recording mode: EFM signal output. Playback mode: C1F (C1 error flag) monitor output.
51*	X700KO	Output	Clock output. f=705.6kHz

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1201 VHiLR37816A-1: Endec/Atrac (LR37816A) (2/2)

Pin No.	Terminal Name	Input/Output	Function
52*	TCRS	Output	Track cross signal
53	TEST0	Input	Input for test. Connected to GND if used normally.
54	TEST1	Input	Input for test. Connected to GND if used normally.
55	DILOCK	Output	DIN lock detection
56	DIN2	Input/Output	Digital input signal. Expansion port 0.
57	CDDATA	Input/Output	Data input for dubbing. Expansion output port 1.
58	CDLRCK	Input/Output	LR clock input for dubbing. Expansion output port 2.
59	CDBCLK	Input/Output	Bit clock input for dubbing. Expansion output port 3.
60	VXI	Input	PLL clock input for variable pitch
61*	VPO	Output	PLL phase error output for variable pitch
62	VDD1	Input	Internal digital power supply
63	DGND	—	Digital GND
64	XI	Input	Transmit circuit input. 33.8688MHz
65	XO	Output	Transmit circuit input. 33.8688MHz
66	DIN	Input	Digital input signal
67	DOUT	Output	Digital output signal
68	PLLBVG	Output	For Internal PLL. Terminal for external capacitor
69	DGND	—	Digital GND
70	LRCK	Output	L-ch, R-ch selection output of music data
71	BCLK	Output	Shift lock of music data
72	DFCK	Output	Clock for AD/DA converter digital filter. 256Fs.
73	ADDATA	Input	Sound data input.
74	DADATA	Output	Sound data output.
75*	FEMON	Output	Focus error signal monitor output. Series resistance 10 - 100kohm built-in
76*	TOTMON	Output	Total signal monitor output. Series resistance 10 - 100kohm built-in
77*	TEMON	Output	Tracking error signal monitor output. Series resistance 10 - 100kohm built-in
78	SBCK	Input/Output	DIN subcode read clock. Expansion port 4.
79	SBO	Output	DIN subcode serial data. Expansion port 5.
80	SBSY	Output	DIN subcode block synchronous signal. Expansion port 6.
81	SFSY	Output	DIN subcode frame synchronous signal. Expansion port 7.
82	FOK	Output	Focus OK detection signal. “0”: focus OK
83	SENSE	Output	Servo condition detection signal
84	COUT	Output	Track cross signal output
85	MCCK	Output	Clock output for microcomputer
86	DINTX	Output	Interrupt request output terminal to system computer interface
87	VDD2	Input	Power supply for interface
88	DGND	—	Digital GND
89	RSTX	Input	Chip reset input. Reset by L. (Note)
90	SYD0	Input/Output	Data bus terminal of system computer interface (LSB)
91-96	SYD1-SYD6	Input/Output	Data bus terminal of system computer interface
97	SYD7	Input/Output	Data bus terminal of system computer interface (MSB)
98	SYWRX	Input	Resister write pulse input of system computer interface
99	SYRDX	Input	Resister read pulse input of system computer interface
100	SYRS	Input	Resister selection input of system computer interface

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

Note: Set RSTX to L when turning on the power or after turning on the power.

IC1202 RH-iX2474AFZZ: 4Mbit D-RAM (IX2474AF)

Pin No.	Terminal Name	Function
1, 2	DQ0, DQ1	Data input/Data output
3	$\overline{WE}$	Write enable
4	$\overline{RAS}$	Row address strobe
5	A9	Address input
6-9	A0-A3	Address input
10	VDD	Power (3.3V)
11-15	A4-A8	Address input
16	$\overline{OE}$	Output enable
17	$\overline{CAS}$	Column address strobe
18, 19	DQ2, DQ3	Data input/Data output
20	VSS	Ground (0V)

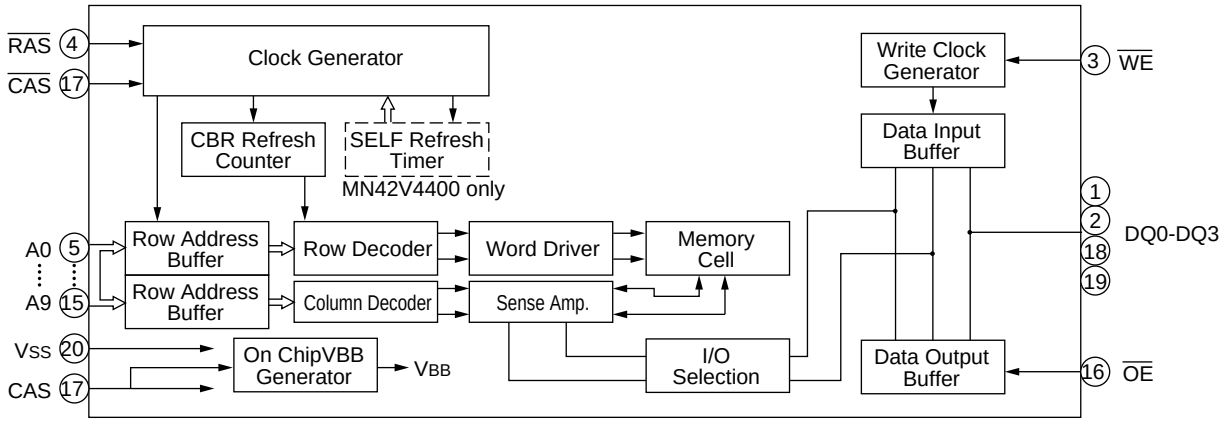


Figure 96-1 BLOCK DIAGRAM OF IC

IC1301 VHiFTD2005/-1: Head Driver (FTD2005)

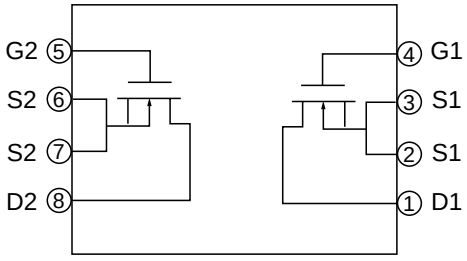


Figure 96-2 BLOCK DIAGRAM OF IC

IC1302 VHiCPH5608/-1: Head Driver (CPH5608)

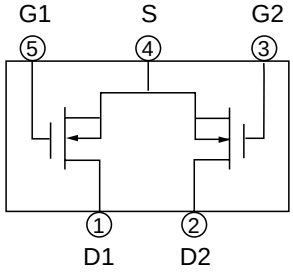


Figure 96-3 BLOCK DIAGRAM OF IC

IC1402 VHi58X2402T-1: EEPROM (58X2402T)

Pin No.	Terminal Name	Function
1-3	A0-A2	Device address
4	VSS	Ground
5	SDA	Serial data input/output
6	SCL	Serial clock input
7	WP	Write protect
8	VCC	Power supply

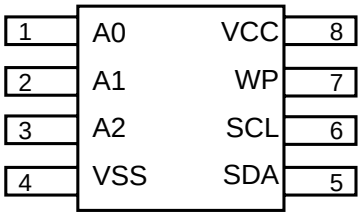


Figure 96-4 BLOCK DIAGRAM OF IC

IC1401 RH-iX0410AWZZ: MD System Microcomputer (IX0410AW) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1	$\overline{4M}$/16M	Output	4M/16M DRAM selection input
2	64M	Output	64M DRAM selection input
3	LDVAR	Output	LDVAR (laser power adjustment output)
4*	ADJS	Output	ADJS (for automatic adjustment step check)
5	CIN	Input	CIN (track count signal input)
6*	NC	—	Not used
7	UNLOCK	Input	ERR input (UNLOCK of MD LSI monitor PLL)
8	BYTE	Input	GND
9	CNVss	Input	GND
10*	STID OUT	Output	ST-ID output
11*	SEACH OUT	Output	MD search output
12	RESET	Input	RESET input
13*	NC	Output	Clock output
14	Vss	—	GND
15	MCCK	Input	EXTAL (8.4672MHz)
16	Vcc	Input	+3.15V
17	P85	Input	Input output port P85
18	DINT	Input	DINT (Interrupt input from MD-LSI)
19	SFSY	Input	Subcode communication frame synchro Interrupt input
20	ST-ID	Input	ST-ID input (MD-ON)
21	SERCH	Input	CD search input (Synchronous REC interrupt input)
22	MDRSW	Output	MD RSW output
23*	CDB SEL	Output	CD BLK SEL output
24	DSENSE	Input	DSENSE (servo sense input from MD-LSI)
25	P-DOWN	Input	P-DOWN (blackout detection)
26	HD ON	Output	HDON (magnetic head power ON/OFF output)
27	EEPRO	Output	EEPROM protect release output
28	HFON	Output	HFON
29	EEPK	Output	EEPROM serial clock output
30	EEPD	Input/Output	EEPROM data input output
31	MD DATA	Output	MD computer data input output
32	K DATA	Input	System computer data input
33	DSCK	Input	System computer clock input
34	DSTB	Output	DSTB (system computer communication possible and during communication)
35*	NC	Output	Not used
36	SBO	Input	Subcode serial data input
37	SBCK	Output	Subcode communication serial clock output
38	DISC	Output	DISC
39	R/P	Output	R/P output (REC/PLAY selection)
40	FOK	Input	FOK (focus servo condition monitor input)
41	FLASH L	Input	Flash write selection
42	SGAIN	Output	SGAIN
43	SYRS	Output	MD LSI resister select signal output
44	SYRD	Output	SYRD (MD-LSI read signal output)
45	SYWR	Output	SYWR (MD-LSI write signal output)
46	FLASH H	Input	Flash write selection
47	SYS D7	Input/Output	SYS D7 (data bus 7)
48	SYS D6	Input/Output	SYS D6 (data bus 6)
49	SYS D5	Input/Output	SYS D5 (data bus 5)
50	SYS D4	Input/Output	SYS D4 (data bus 4)
51	SYS D3	Input/Output	SYS D3 (data bus 3)

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1401 RH-iX0410AWZZ: MD System Microcomputer (IX0410AW) (2/2)

Pin No.	Terminal Name	Input/Output	Function
52	SYS D2	Input/Output	SYS D2 (data bus 2)
53	SYS D1	Input/Output	SYS D1 (data bus 1)
54	SYS D0	Input/Output	SYS D0 (data bus 0)
55*	P37	Output	Input output port P37
56*	P36	Output	Input/output port P36
57*	P35	Output	Input/output port P35
58*	P34	Output	Input/output port P34
59*	P33	Output	Input/output port P33
60*	P32	Output	Input/output port P32
61	P31	Output	Input/output port P31
62	Vcc	Input	+3.15V
63	INNSW	Input	Pick most inner periphery detection input
64	GND	—	GND
65	L3 DATA	Output	L3 DATA (soft serial communication, 2 mode presence, LSB first)
66	L3 MODE	Output	L3 MODE (soft serial communication, 2 mode presence, LSB first)
67	L3 CLK	Output	L3 CLK (soft serial communication, 2 mode presence, LSB first)
68*	P24	Output	Input output port P24
69*	P23	Output	Input output port P23
70	PCNT0	Output	PCNT0 output
71*	LAST	Output	LAST
72	LD ON	Output	LDON output (H : ON)
73	$\overline{A}$/B	Output	ANLPTR output. ADC/DAC selection input.
74	SBSY	Output	Subcode communication block synchro input.
75*	DAP ON	Output	DAPON output (for CK)
76*	DFS0	Output	DFS0 output
77*	DFS1	Output	DFS1 output
78	P12	Output	Input/output port P12
79	P11	Output	Input/output port P11
80	XRST	Output	XRST (system reset output)
81*	AD MUTE	Output	ADMUTE output (for CK)
82	LD+	Output	Loading motor + side control output
83	LD-	Output	Loading motor - side control output
84*	MUTE	Output	MUTE output
85*	RAST	Output	RAST
86*	TEST2	Input	TEST 2
87*	TEST1	Input	TEST 1
88*	TEST0	Input	TEST 0
89	AVCK3	Input	AVCK3 (motor driver power monitor input)
90	AVCK2	Input	AVCK2 (AD/DA section 3.1 V monitor input)
91	AVCK1	Input	AVCK1 (head circuit power monitor input)
92	DTEMP	Input	DTEMP (temperature detection input)
93	MINF	Input	MINF (disc type/REC input/mecha position)
94*	TEST K1	Input	TEST K1
95*	TEST K2	Input	TEST K2
96	GND	—	GND
97*	NC	—	Not used
98	VREF	Input	+3.15V
99	AVcc	Input	+3.15V
100	PR	Input	Playback/recording unit setting input

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1701 VHiUDA1345/-1: AD/DA Converter (UDA1345)

Pin No.	Terminal Name	Function
1	VSSA(ADC)	AD converter analog ground
2	VDDA(ADC)	AD converter analog power
3	VINL	AD converter input (left)
4	Vref(A)	AD converter reference voltage
5	VINR	AD converter input (right)
6	VADCN	AD converter reference voltage N
7	VADCP	AD converter reference voltage P
8*	MC1	Mode control 1 (Pulled-down)
9*	MP1	Multipurpose pin 1
10	VDDD	Digital power
11	VSSD	Digital ground
12	SYSCLK	System clock 256fs, 384fs, 512fs
13	MP2	Multipurpose pin 2
14	MP3	Multipurpose pin 3
15	MP4	Multipurpose pin 4
16	BCK	Bit clock input
17	WS	Word select input
18	DATAO	Data output
19	DATAI	Data input
20*	MP5	Multipurpose pin 5 (Pulled-down)
21*	MC2	Mode control 2 (Pulled-down)
22	VSSA(DAC)	DA converter analog ground
23	VDDA(ADC)	DA converter analog power
24	VOUTR	DA converter output (right)
25	VDDO	Opeamp power
26	VOUTL	DA converter output (left)
27	VSSO	Opeamp ground
28	Vref(D)	AD converter reference voltage

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

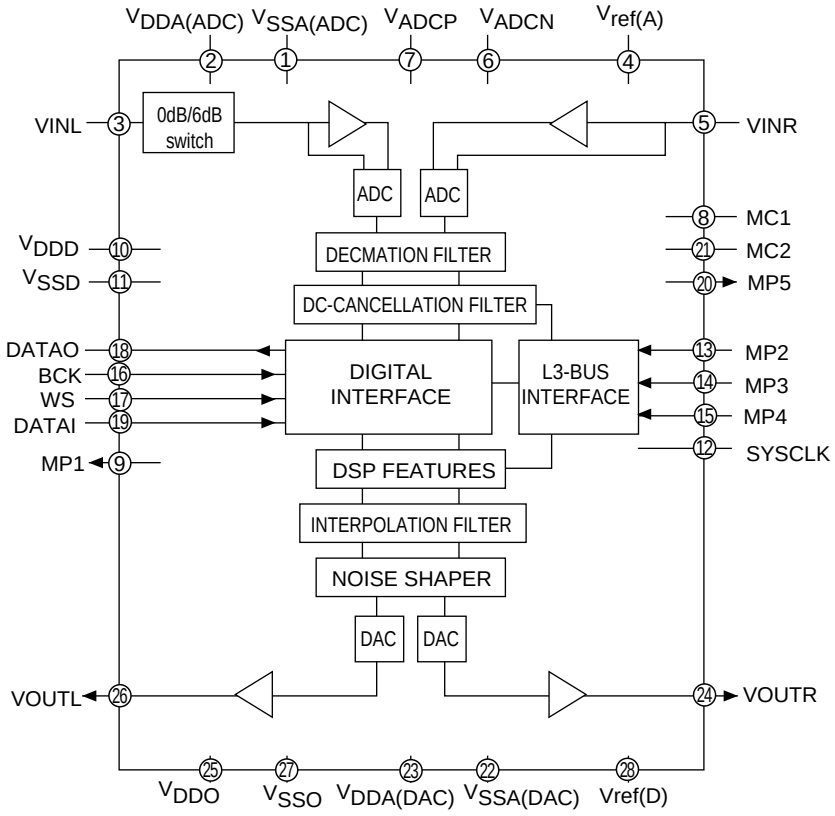
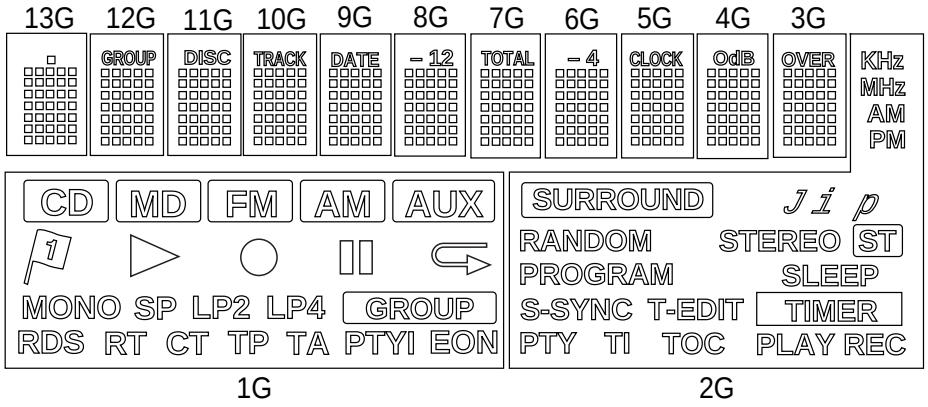
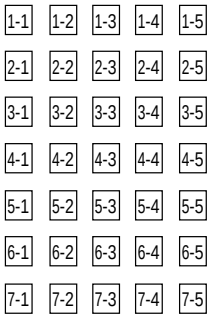


Figure 99 BLOCK DIAGRAM OF IC

FL DISPLAY

FLD01: VVKHNA13LS3-1


13G 12G 11G 10G 9G 8G 7G 6G 5G 4G 3G
GROUP DISC TRACK DATE – 12 TOTAL – 4 CLOCK OdB OVER
KHz MHz AM PM
CD MD FM AM AUX
SURROUND
RANDOM STEREO ST
PROGRAM SLEEP
MONO SP LP2 LP4 GROUP
S-SYNC T-EDIT TIMER
RDS RT CT TP TA PTYI EON
PTY TI TOC PLAY REC
1G
2G



(3G – 13G)

CONNECTION

PIN No.	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40
CONNECTION	F2	NP	F2	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	P36	P35

PIN No.	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
CONNECTION	P34	P33	P32	P31	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15

PIN No.	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F1	NP	F1

ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G
P1	–	–	OVER	OdB	CLOCK	– 4	TOTAL	–12	DATE	TRACK	DISC	GROUP	□
P2	–	–	1–1	1–1	1–1	1–1	1–1	1–1	1–1	1–1	1–1	1–1	1–1
P3	–	–	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2
P4	–	–	1–3	1–3	1–3	1–3	1–3	1–3	1–3	1–3	1–3	1–3	1–3
P5	–	–	1–4	1–4	1–4	1–4	1–4	1–4	1–4	1–4	1–4	1–4	1–4
P6	–	–	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5
P7	–	–	2–1	2–1	2–1	2–1	2–1	2–1	2–1	2–1	2–1	2–1	2–1
P8	–	–	2–2	2–2	2–2	2–2	2–2	2–2	2–2	2–2	2–2	2–2	2–2
P9	–	–	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3
P10	–	–	2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4
P11	–	–	2–5	2–5	2–5	2–5	2–5	2–5	2–5	2–5	2–5	2–5	2–5
P12	–	–	3–1	3–1	3–1	3–1	3–1	3–1	3–1	3–1	3–1	3–1	3–1
P13	–	–	3–2	3–2	3–2	3–2	3–2	3–2	3–2	3–2	3–2	3–2	3–2
P14	–	–	3–3	3–3	3–3	3–3	3–3	3–3	3–3	3–3	3–3	3–3	3–3
P15	RDS	–	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4
P16	RT	–	3–5	3–5	3–5	3–5	3–5	3–5	3–5	3–5	3–5	3–5	3–5
P17	CT	kHz	4–1	4–1	4–1	4–1	4–1	4–1	4–1	4–1	4–1	4–1	4–1
P18	TP	MHz	4–2	4–2	4–2	4–2	4–2	4–2	4–2	4–2	4–2	4–2	4–2
P19	TA	AM	4–3	4–3	4–3	4–3	4–3	4–3	4–3	4–3	4–3	4–3	4–3
P20	PTYI	PM	4–4	4–4	4–4	4–4	4–4	4–4	4–4	4–4	4–4	4–4	4–4
P21	EON	PTY	4–5	4–5	4–5	4–5	4–5	4–5	4–5	4–5	4–5	4–5	4–5

	1G	2G	3G – 13G
P22	GROUP	TI	5–1
P23	LP4	TOC	5–2
P24	LP2	PLAY	5–3
P25	SP	REC	5–4
P26	MONO	S-SYNC	5–5
P27	1	T-EDT	6–1
P28	▷	TIMER	6–2
P29	○	PROGRAM	6–3
P30	▯▯	SLEEP	6–4
P31	⮌	RANDOM	6–5
P32	CD	STEREO	7–1
P33	MD	ST	7–2
P34	FM	SURROUND	7–3
P35	AM	J i	7–4
P36	AUX	p	7–5

SHARP PARTS GUIDE

1-BIT DIGITAL AUDIO SYSTEM

MODEL SD-NX10H

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. No.
3. PART NO.
4. DESCRIPTION

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

Explanation of capacitors/resistors parts codes

Capacitors

VCC ..... Ceramic type
VCK..... Ceramic type
VCT..... Semiconductor type
VC • • MF ..... Cylindrical type (without lead wire)
VC • • MN..... Cylindrical type (without lead wire)
VC • • TV..... Square type (without lead wire)
VC • • TQ ..... Square type (without lead wire)
VC • • CY ..... Square type (without lead wire)
VC • • CZ ..... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

Resistors

VRD ..... Carbon-film type
VRS..... Carbon-film type
VRN ..... Metal-film type
VR • • MF ..... Cylindrical type (without lead wire)
VR • • MN..... Cylindrical type (without lead wire)
VR • • TV..... Square type (without lead wire)
VR • • TQ ..... Square type (without lead wire)
VR • • CY ..... Square type (without lead wire)
VR • • CZ ..... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

NOTE:
Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION

SD-NX10H

INTEGRATED CIRCUITS

IC601	VHIKIA7812AP1	J	AF	Constant Voltage Regulator, KIA7812AP
IC602	VHIKIA7805AP1	J	AF	Constant Voltage Regulator, KIA7805AP
IC650	VHPTORX178A-1	J	AQ	Digital In,TORX178A
IC800	VHIAN78L05/-1	J	AE	Constant Voltage Regulator, AN78L05
IC801	VHIKIA7810AP1	J	AF	Voltage Regulator,KIA7810AP
IC802	VHIKIA7808AP1	J	AF	Voltage Regulator,KIA7808AP
IC804	VHIKIA7805AP1	J	AF	Constant Voltage Regulator, KIA7805AP
IC805	VHIAN78L05/-1	J	AE	Constant Voltage Regulator, AN78L05
IC806	VHIKIA7805AP1	J	AF	Constant Voltage Regulator, KIA7805AP
IC807	VHIKIA7810AP1	J	AF	Voltage Regulator,KIA7810AP
IC1101	VHIIR3R58M/-1	J	AM	RF Signal Processor,IR3R58M
IC1201	VHILR37816A-1	J	BQ	Endec/Atrac,LR37816A
IC1202	RH-IX2474AFZZ	J	BF	4Mbit D-RAM,IX2474AF
IC1300	VHI74ACT02T-1	J	AE	Head Driver,74ACT02T
IC1301	VHIFTD2005/-1	J	AG	Head Driver,FTD2005
IC1302	VHICPH5608/-1	J	AH	Head Driver,CPH5608
IC1401	RH-IX0410AWZZ	J	AY	MD System Microcomputer, IX0410AW
IC1402	VHI58X2402T-1	J	AF	EEPROM,58X2402T
IC1601	VHIM56788FP-1	J	AX	Motor Driver,M56788FP
IC1701	VHIUDA1345/-1	J	AU	AD/DA Converter,UDA1345
IC1702	VHINJM431U/-1	J	AE	Regulator,NJM431U
IC1801	VHIXC62EP32-1	J	AE	Regulator,XC62EP32
IC1802	VHIXC62FP26P1	J	AG	Regulator,XC62FP26P
ICA100	RH-IX2815AFZZ	J	AV	7th Order ⊿Σ Modulation Conversion LSI,IX2815AF
ICA101~104	VHIHIP2100/-1	J	AQ	FET Driver,HIP2100
ICA105	VHINJM78M9D-1	J	AG	+9V Voltage Regulator, NJM78M9D
ICA110	VHITC74AC8T-1	J	AH	AND Gate,TC74AC8T
ICD01	RH-IX0381AWZZ	J		System Microcomputer, IX0381AW
ICD02,03	VHIBU2092F/-1	J	AM	Input/Output Expander,BU2092F
ICE04	VHIPST9140/-1	J	AG	Reset,PST9140
ICP01	VHINJM4580M-1	J	AE	Buffer Amp.,NJM4580M
ICS01	VHINJM4580M-1	J	AE	Surround Amp.,NJM4580M
ICT21	VHILC72722/-1	J	AY	RDS Decorder,LC72722
ICU01	VHILC75341M-1	J	AM	Audio Processor,LC75341M
ICU02	VHI74VHC00F-1	J	AE	Invertor,74VHC00F
ICU03	VHITA7291S/-1	J	AH	Loading Motor Driver,TA7291S
ICU04	VHI74VHC08F-1	J	AE	Invertor,74VHC08F
ICU05	VHILC89051V-1	J	AX	Digital Audio Interface,LC89051
ICV91	VHIBU2092F/-1	J	AM	Input/Output Expander,BU2092F
ICV98,99	VHIKIA4558P-1	J	AC	Ope Amp.,KIA4558P

TRANSISTORS

Q601	VSKTA1023Y/-1	J	AE	Silicon,PNP,KTA1023 Y
Q602	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q603	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
Q605	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q606	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q801	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q803	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q900	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q1402	VSUN2113///-1	J	AB	Digital,PNP,UN2113
Q1403	VSUN2213///-1	J	AB	Digital,NPN,UN2213
Q1501	VSUN2214///-1	J	AB	Digital,NPN,UN2214
Q1700	VS2SD601AR/-1	J	AC	Silicon,NPN,2SD601 AR
Q1701	VSUN2213///-1	J	AB	Digital,NPN,UN2213
Q1702	VS2SA1162G/-1	J	AB	Silicon,PNP,2SA1162 G
Q1800	VSUN2214///-1	J	AB	Digital,NPN,UN2214
Q1801	VS2SA1162G/-1	J	AB	Silicon,PNP,2SA1162 G
Q1802	VSUN2214///-1	J	AB	Digital,NPN,UN2214
Q1803	VSUN221N///-1	J	AB	Digital,NPN,UN221 N
Q1804	VS2SB1205++-1	J	AF	Silicon,PNP,2SB1205
Q1805	VS2SA1314C/-1	J	AD	Silicon,PNP,2SA1314 C
Q1806	VSUN221N///-1	J	AB	Digital,NPN,UN221 N
Q1807	VS2SD601AR/-1	J	AC	Silicon,NPN,2SD601 AR
QA100,101	VSSLA5001++-1	J	AT	Power FET×4,SLA5001
QA102	VSKRA225S++-1	J		Digital,PNP,KRA225 S
QA103	VSKRC102S//-1	J	AB	Digital,NPN,KRC102 S
QD01	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QD03~05	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
QD06	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
QD07	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QD08	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QD09,10	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
QD11	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QD12	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
QD13	VSKRA106M++-1	J		Digital,PNP,KRA106 M
QP01,02	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QP03,04	VS2SC2878B/-1	J	AC	Silicon,NPN,2SC2878 B
QP05	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
QP06	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
QP07,08	VS2SC2878B/-1	J	AC	Silicon,NPN,2SC2878 B
QP09	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
QP11,12	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QP13,14	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
QS01	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
QS02	VS2SK246GR/-1	J	AB	FET,2SK246 GR
QU04	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QV85	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QV87	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QV88	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QV90	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
QV91,92	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QV93	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
QV94	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QV95~99	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR

DIODES

D601~609	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D610~612	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D614~620	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D650,651	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
⚠ D800	VHDTS4B03GM-1	J	AK	Silicon,TS4B03GM
D801~804	VHD2A02M+++-X	J	AC	Silicon,2A02M
D809	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D810	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D811,812	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D813~817	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D820~824	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D827	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D828	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D829~831	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D900~903	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D904	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D1300	VHDSBE803//-1	J	AD	Silicon,SBE803
D1401	VHDSB00703Q-1	J	AB	Silicon,SB00703Q
D1402	VHD1SS355//-1	J	AB	Silicon,1SS355
DA100~107	VHDKDS160//-1	J	AB	Silicon,KDS160
DA108,109	VHD1SS362++-1	J	AD	Silicon,1SS362
DA112~119	VHDSFPW56++-1	J	AE	Silicon,SFPW56
DA126~129	VHD1SS361//-1	J	AB	Silicon,1SS361
DA130	VHDKDS160//-1	J	AB	Silicon,KDS160
DA131	VHD11ES4TB5-1	J	AA	Silicon,11ES4TB5
DA132	VHDKDS160//-1	J	AB	Silicon,KDS160
DD01~07	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DP01,02	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DP03~06	VHD11ES1///-1	J	AB	Silicon,11ES1
DP07,08	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DS01	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DT31	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DU01	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DU03	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DV86~93	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
LED800	VHPDB3804X+-1	J	AU	LED,Blue,DB3804X
LEDD01	RUNTK3503AWS1	J	AZ	Three Colors LED,STM515AS
LEDD02	VHP2647RT49-1	J	AD	LED,Red,2647RT49
LEDD03	VHP4204UGT9-1	J		LED,Green,4204UGT9
LEDD04	VHPLNG901CF-1	J	AS	LED,Blue,LNG901CF
LEDD05,06	VHP4204UYT9-1	J	AD	LED,Yellow,4204UYT9
LEDD13	RUNTK3503AWS1	J	AZ	Three Colors LED,STM515AS
LEDD14	VHP4204UYT9-1	J	AD	LED,Yellow,4204UYT9
LEDD15	VHPDB3804X+-1	J	AU	LED,Blue,DB3804X
ZD601	VHEDZ330BSD-1	J	AC	Zener,33V,DZ33BSD
ZD602	VHEDZ5R1BSB-1	J	AC	Zener,5.1V,DZ5.1BSB
ZD603	VHEDZ130BSC-1	J	AB	Zener,13V,DZ13BSC
ZD604	VHEDZ6R2BSB-1	J	AC	Zener,6.2V,DZ6.2BSB
ZD801	VHEDZ5R1BSA-1	J	AB	Zener,5.1V,DZ5.1BSA
ZD830,831	VHEDZ8R2BSB-1	J	AB	Zener,8.2V,DZ8.2BSB

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
ZDA110	VHEMA8051M/-1	J	AC	Zener,MA8051M
ZDA111	VHE02DZ120+-1	J		Zener,12V,02DZ12
ZDU01,02	VHEDZ3R3BSA-1	J	AB	Zener,3.3V,DZ3.3BSA
ZDU03	VHEDZ100BSB-1	J	AB	Zener,10V,DZ10BSB
ZDV99	VHEDZ6R8BSB-1	J	AB	Zener,6.8V,DZ6.8BSB

TRANSFORMERS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
⚠ T601	RTRNP0336AWZZ	J	AN	Power
⚠ T901	RTRNP0287AWZZ	J	AM	Power,Sub
⚠ T991	RTRNP0338AWZZ	J	BB	Power,Main

COILS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
L651	VP-XH2R2K0000	J	AB	2.2 µH,Choke
⚠ L900	RCILZ0021AWZZ	J	AF	AC Line Filter
L1100	VPBNNR47K0000	J	AC	0.47 µH
L1101	VPBNN100K0000	J	AC	10 µH
L1200	VPBNN4R7K0000	J	AC	4.7 µH
L1201,1202	VPBNNR47K0000	J	AC	0.47 µH
L1300	RCILC0358AFZZ	J	AC	4.7 µH,Choke
L1501	RCILZ0016AWZZ	J	AD	1 µH
L1502	VPBNN4R7K0000	J	AC	4.7 µH
L1551,1552	VPBNNR47K0000	J	AC	0.47 µH
L1554	VPBNNR47K0000	J	AC	0.47 µH
L1600	RCILZ0016AWZZ	J	AD	1 µH
L1701,1702	VPBNN100K0000	J	AC	10 µH
LA100	RCILZ0031AWZZ	J	AM	Coil,20 µH,10%
LA102	RCILZ0031AWZZ	J	AM	Coil,20 µH,10%
LA104	RCILZ0031AWZZ	J	AM	Coil,20 µH,10%
LA106	RCILZ0031AWZZ	J	AM	Coil,20 µH,10%
LA124	RCORF0087AFZZ	J	AC	Core
LA127	RCORF0020AWZZ	J	AD	Core,Ferrite Core
LA130~133	RCORF0019AWZZ	J	AD	Core,Ferrite Core
LD02,03	VP-DH2R2K0000	J	AB	2.2 µH,Peaking
LFA01,02	RCILZ0030AWZZ	J	AK	Coil,6.75 µH
LFA03,04	RCILZ0029AWZZ	J	AK	Coil,2.6 µH
LFA05,06	RCILZ0030AWZZ	J	AK	Coil,6.75 µH
LP01	VP-XH2R2K0000	J	AB	2.2 µH,Choke
LT21,22	VP-XH2R2K0000	J	AB	2.2 µH,Choke
LU01	VP-XH2R2K0000	J	AB	2.2 µH,Choke

VARIABLE RESISTORS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
VRA100	RVR-M0026AWZZ	J	AC	10 kohm (B),Semi-VR [L-CH Output Offset Adjustment]
VRA101	RVR-M0026AWZZ	J	AC	10 kohm (B),Semi-VR [R-CH Output Offset Adjustment]

VIBRATORS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
CXA100	RCRSP0021AWZZ	J	AG	Crystal,11.2896 Hz
XL1201	RCRSC0001AWZZ	J	AL	Crystal,33.8688 MHz
XLD01	RCRSP0009AWZZ	J	AK	Crystal,8.3886 MHz
XT21	RCRSP0010AWZZ	J	AH	Crystal,4.332 MHz

THERMISTOR

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
⚠ PSV801	RH-QX0006AWZZ	J	AE	Posistor,4.7 ohms

CAPACITORS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C601,602	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C603	VCEAZV1EW228M	J	AG	2200 µF,25V,Electrolytic
C604	VCEAZV1EW108M	J	AE	1000 µF,25V,Electrolytic
C605	VCEAZV1HW477M	J	AE	470 µF,50V,Electrolytic
C606,607	VCEAZA1HW107M	J	AC	100 µF,50V,Electrolytic
C608	VCEAZA1JW476M	J	AC	47 µF,63V,Electrolytic
C609,610	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C611	VCEAZA1VW107M	J	AC	100 µF,35V,Electrolytic
C612	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C613	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C614	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C615	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
C616	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C617,618	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C619	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C620	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C621	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C622	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C630	VCKYBT1HB102K	J	AA	0.001 µF,50V
C631	VCTYBT1HB101K	J		100 pF,50V
C650	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C651	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
C652,653	VCKYBT1HB102K	J	AA	0.001 µF,50V
C654	VCEAEA1HW474M	J	AB	0.47 µF,50V,Electrolytic
C655	VCTYBT1HB102K	J	AA	0.001 µF,50V
C657	VCTYBT1HB102K	J	AA	0.001 µF,50V
C658	VCTYMN1HB102K	J	AA	0.001 µF,50V
C659	VCKYBT1HB102K	J	AA	0.001 µF,50V
C800,801	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film
C802,803	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C804,805	RC-EZ0049AWZZ	J	AP	6800 µF,25V,Electrolytic
C806	VCTYBT1CY103M	J	AA	0.01 µF,16V
C807	VCEAZW1EW478M	J	AK	4700 µF,25V,Electrolytic
C808,809	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C815	RC-EZD105AF1H	J	AB	1 µF,50V,Electrolytic
C816	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C817	VCFYHA1HA473J	J	AB	0.047 µF,50V,Thin Film
C818	VCEAZA0JW108M	J	AC	1000 µF,6.3V,Electrolytic
C819	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C820	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C821	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C822	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C823	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C824	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C825	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C826	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C830	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C831	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C832	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C833	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C834	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C835	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C836	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C837	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
C838	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C839	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
⚠ C900	RC-KZ001LAWZZ	J	AB	0.0047 µF,250VAC,Ceramic
C901,902	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C903	VCEAZA1EW477M	J	AD	470 µF,25V,Electrolytic
C1100	RC-KZ0003AWZZ	J	AE	4.7 µF,10V
C1107	VCKYCY1CB223K	J	AA	0.022 µF,16V
C1110,1111	VCKYTV1CF105Z	J	AB	1 µF,16V
C1112	VCCCCY1HH5R0C	J	AA	5 pF (CH),50V
C1113	VCKYTV0JB105K	J	AD	1 µF,6.3V
C1114,1115	VCKYCY1CB104K	J	AB	0.1 µF,16V
C1116	VCKYTV0JB105K	J	AD	1 µF,6.3V
C1117	VCKYTV1CF105Z	J	AB	1 µF,16V
C1118,1119	VCKYTV1CB474K	J	AC	0.47 µF,16V
C1121	VCKYTV1CB224K	J	AB	0.22 µF,16V
C1122	VCKYTV1CF105Z	J	AB	1 µF,16V
C1123	VCKYCY1CB104K	J	AB	0.1 µF,16V
C1124	VCKYTV1CB104K	J	AA	0.1 µF,16V
C1125	VCKYTV1CF105Z	J	AB	1 µF,16V
C1200	VCKYTV1CF105Z	J	AB	1 µF,16V
C1201	RC-KZ0002AWZZ	J	AE	10 µF,10V
C1202,1203	VCKYTV1CF105Z	J	AB	1 µF,16V
C1205	VCKYTV1CF105Z	J	AB	1 µF,16V
C1206	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C1207	VCKYTV1CF105Z	J	AB	1 µF,16V
C1208,1209	VCCCCY1HH120J	J	AA	12 pF (CH),50V
C1210	VCCCCY1HH220J	J	AA	22 pF (CH),50V
C1211	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C1230	VCKYTV1CF105Z	J	AB	1 µF,16V
C1261~1265	VCCCCY1HH221J	J	AA	220 pF (CH),50V
C1266	VCCCCY1HH220J	J	AA	22 pF (CH),50V
C1300	VCCCTV1HH470J	J	AA	47 pF (CH),50V
C1301	VCKYCY1CB223K	J	AA	0.022 µF,16V
C1302	RC-KZ0002AWZZ	J	AE	10 µF,10V
C1303	VCKYTV1CF105Z	J	AB	1 µF,16V
C1304	VCCCTV1HH221J	J	AA	220 pF (CH),50V
C1403,1404	VCKYCY1HF103Z	J	AB	0.01 µF,50V
C1405,1406	VCKYCY1HB681K	J	AA	680 pF,50V
C1407	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C1409	VCKYTV1CF105Z	J	AB	1 µF,16V
C1501	VCKYTV1CF105Z	J	AB	1 µF,16V
C1502	VCCCTV1HH331J	J	AA	330 pF (CH),50V
C1503	VCKYTQ1CB334K	J	AC	0.33 µF,16V
C1505	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C1506	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C1507	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C1509	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C1602	VCCCCY1HH471J	J	AA	470 pF (CH),50V

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NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C1603	VCCCCY1HH681J	J	AC	680 pF (CH),50V
C1606	RC-KZ0002AWZZ	J	AE	10 µF,10V
C1607	VCKYTV1CF105Z	J	AB	1 µF,16V
C1610	RC-KZ0003AWZZ	J	AE	4.7 µF,10V
C1611	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C1613	VCKYCY1CB103K	J	AA	0.01 µF,16V
C1616	VCEAPS107AF1A	J	AD	100 µF,10V,Electrolytic
C1619	VCCCCY1HH331J	J	AA	330 pF (CH),50V
C1655	VCKYCY1HF103Z	J	AB	0.01 µF,50V
C1700,1701	VCEAPS476AF0G	J	AC	47 µF,4V,Electrolytic
C1702	VCKYCY1HB102K	J	AA	0.001 µF,50V
C1703	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C1704	VCEAPS476AF0G	J	AC	47 µF,4V,Electrolytic
C1705	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C1706	VCKYTV1HF103Z	J	AA	0.01 µF,50V
C1707	VCKYTV1CF105Z	J	AB	1 µF,16V
C1708,1709	VCKYTV1HF103Z	J	AA	0.01 µF,50V
C1710	RC-EZ1620AFZZ	J	AC	10 µF,16V,Electrolytic
C1711	VCEAPS476AF0G	J	AC	47 µF,4V,Electrolytic
C1712	RC-EZ1620AFZZ	J	AC	10 µF,16V,Electrolytic
C1713	VCKYTV1HF103Z	J	AA	0.01 µF,50V
C1714	VCKYTV1CF105Z	J	AB	1 µF,16V
C1715	VCKYTV1CB104K	J	AA	0.1 µF,16V
C1716	VCEAPS476AF0G	J	AC	47 µF,4V,Electrolytic
C1741	VCCCCY1HH681J	J	AC	680 pF (CH),50V
C1750	VCCCCY1HH681J	J	AC	680 pF (CH),50V
C1800	VCEAPS227AF0G	J	AC	220 µF,4V,Electrolytic
C1801,1802	RC-KZ0002AWZZ	J	AE	10 µF,10V
C1803	VCEAPS107AF1A	J	AD	100 µF,10V,Electrolytic
C1804	VCKYTQ1CF225Z	J	AB	2.2 µF,16V
C1805,1806	VCKYTV1CF105Z	J	AB	1 µF,16V
CA100,101	VCCCCY1HH180J	J	AA	18 pF (CH),50V
CA102~104	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA105,106	RC-EZ0007AWZZ	J	AF	10 µF,10V,Electrolytic
CA107	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA108,109	RC-EZ0051AWZZ	J	AC	10 µF,10V,Electrolytic
CA110	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA111	RC-EZD337AF0J	J	AC	330 µF,6.3V,Electrolytic
CA112~115	VCKYTQ1EB105K	J		1 µF,25V
CA116	VCKYCY1CF224Z	J	AB	0.22 µF,16V
CA117	VCKYTQ1HB224K	J	AC	0.22 µF,50V
CA118,119	VCKYCY1CF224Z	J	AB	0.22 µF,16V
CA120	VCKYTQ1HB224K	J	AC	0.22 µF,50V
CA121	VCKYCY1CF224Z	J	AB	0.22 µF,16V
CA122~125	RC-KZ0007AWZZ	J	AG	1 µF,25V,Electrolytic
CA126	VCKYCY1CF224Z	J	AB	0.22 µF,16V
CA127	VCKYTQ1HB224K	J	AC	0.22 µF,50V
CA128,129	VCKYCY1CF224Z	J	AB	0.22 µF,16V
CA130	VCKYTQ1HB224K	J	AC	0.22 µF,50V
CA131	VCKYCY1CF224Z	J	AB	0.22 µF,16V
CA132~135	RC-KZ0007AWZZ	J	AG	1 µF,25V,Electrolytic
CA142,143	VCFYDA1HA155J	J	AG	1.5 µF,50V,Thin Film
CA150,151	VCFYDA1HA155J	J	AG	1.5 µF,50V,Thin Film
CA152	VCCCCY1HH120J	J	AA	12 pF (CH),50V
CA153,154	VCCCCY1HH180J	J	AA	18 pF (CH),50V
CA155	VCCCCY1HH120J	J	AA	12 pF (CH),50V
CA159	VCE9GA1EW107M	J	AE	100 µF,25V,Electrolytic,Non-Polar
CA160	VCEAZA1EW107M	J	AB	100 µF,25V,Electrolytic
CA162	VCEAEA1HW106M	J	AB	10 µF,50V,Electrolytic
CA163	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
CA164,165	RC-EZD107AF1A	J	AB	100 µF,10V,Electrolytic
CA177~180	VCKYCY1EB103K	J	AA	0.01 µF,25V
CA181	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CA182	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA184	RC-EZD476AF1A	J	AC	47 µF,10V,Electrolytic
CA185	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA186	RC-EZD476AF1A	J	AC	47 µF,10V,Electrolytic
CA187~193	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA194	RC-EZD476AF1C	J	AC	47 µF,16V,Electrolytic
CA196,197	RC-EZD476AF1E	J	AC	47 µF,25V,Electrolytic
CA198	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA211	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA212	RC-EZD107AF1C	J	AC	100 µF,16V,Electrolytic
CA213	RC-EZD107AF1E	J	AD	100 µF,25V,Electrolytic
CA214	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA215~222	VCCCCY1HH560J	J	AA	56 pF (CH),50V
CA223,224	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film
CD01~03	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
CD04	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CD05	VCEAEA1EW476M	J	AA	47 µF,25V,Electrolytic
CD06	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CD07	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
CD10	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CD11	VCEAEA1CW106M	J	AB	10 µF,16V,Electrolytic
CD12~14	VCCSMN1HL470J	J	AA	47 pF,50V
CD16,17	VCKYMN1HB101K	J	AA	100 pF,50V
CD18	VCCSMN1HL470J	J	AA	47 pF,50V
CD19	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CD20	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
CD21,22	VCCCMN1HH150J	J	AA	15 pF (CH),50V
CD23	VCCCMN1HH180J	J	AA	18 pF (CH),50V
CD29	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CD30	VCEAEA1CW106M	J	AB	10 µF,16V,Electrolytic
CD31	VCKYBT1HB101K	J	AA	100 pF,50V
CD32~35	VCKYMN1HB101K	J	AA	100 pF,50V
CD38	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CD39	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CD40,41	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CD42,43	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CD45	VCKYMN1HB151K	J	AA	150 pF,50V
CD46	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CD47	VCTYMN1CY103M	J	AA	0.01 µF,16V
CD48	VCEAEA1HW475M	J	AB	4.7 µF,50V,Electrolytic
CD49	VCFYHA1HA104J	J	AB	0.1 µF,50V,Thin Film
CD50	VCEAZA1AW477M	J	AC	470 µF,10V,Electrolytic
CD51	VCEAEA1CW226M	J	AB	22 µF,16V,Electrolytic
CD52	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CD53	VCEAEA1CW226M	J	AB	22 µF,16V,Electrolytic
CD54	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CD55	VCEAEA1CW106M	J	AB	10 µF,16V,Electrolytic
CD60	VCKYBT1HB102K	J	AA	0.001 µF,50V
CP01,02	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
CP03,04	VCCSMN1HL470J	J	AA	47 pF,50V
CP05,06	VCKYMN1HB101K	J	AA	100 pF,50V
CP09,10	VCEAEA1CW106M	J	AB	10 µF,16V,Electrolytic
CP11,12	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CP13,14	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
CP15,16	VCKYMN1HB221K	J	AA	220 pF,50V
CP17,18	VCEAEA1CW226M	J	AB	22 µF,16V,Electrolytic
CP23,24	VCEAZA1AW107M	J	AB	100 µF,10V,Electrolytic
CP31,32	VCKYMN1HB101K	J	AA	100 pF,50V
CP35,36	VCEAEA1HW225M	J	AB	2.2 µF,50V,Electrolytic
CP37~40	VCCSMN1HL470J	J	AA	47 pF,50V
CP41	VCKYMN1HB102K	J	AA	0.001 µF,50V
CS01,02	VCFYHA1HA274J	J	AC	0.27 µF,50V,Thin Film
CS03~06	VCTYMN1CX472M	J	AA	0.0047 µF,16V
CS08,09	VCFYHA1HA334J	J	AC	0.33 µF,50V,Thin Film
CS10,11	RC-EZ0004AWZZ	J	AD	100 µF,10V,Electrolytic
CT21	VCEAEA1EW476M	J	AA	47 µF,25V,Electrolytic
CT22	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT23	VCEAEA1CW106M	J	AB	10 µF,16V,Electrolytic
CT25	VCKYMN1HB561K	J	AA	560 pF,50V
CT26,27	VCCCMN1HH220J	J	AA	22 pF (CH),50V
CT28	VCEAEA1EW476M	J	AA	47 µF,25V,Electrolytic
CT29	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT38	VCQYKA1HM223K	J	AB	0.022 µF,50V,Mylar
CU01,02	RC-EZ0047AWZZ	J	AC	10 µF,50V,Electrolytic
CU05~08	VCEAEA1HW225M	J	AB	2.2 µF,50V,Electrolytic
CU09,10	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
CU11,12	VCEAEA1HW225M	J	AB	2.2 µF,50V,Electrolytic
CU13,14	VCQYKA1HM102K	J	AA	0.001 µF,50V,Mylar
CU15~18	VCEAEA1HW334M	J	AB	0.33 µF,50V,Electrolytic
CU19,20	VCCSMN1HL470J	J	AA	47 pF,50V
CU30	VCEAEA1CW226M	J	AB	22 µF,16V,Electrolytic
CU31	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CU32	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
CU33	RC-EZ0004AWZZ	J	AD	100 µF,10V,Electrolytic
CU43,44	VCEAEA1HW475M	J	AB	4.7 µF,50V,Electrolytic
CU45	RC-EZ0004AWZZ	J	AD	100 µF,10V,Electrolytic
CU46	VCTYBT1CX472K	J	AA	0.0047 µF,16V
CU47,48	VCKYBT1HB102K	J	AA	0.001 µF,50V
CU49	VCKYMN1HB471K	J	AA	470 pF,50V
CU50	VCKYBT1HB102K	J	AA	0.001 µF,50V
CU51	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
CU52	VCFYHA1HA104J	J	AB	0.1 µF,50V,Thin Film
CU53	VCQYKA1HM103K	J	AA	0.01 µF,50V,Mylar
CU54	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
CU55	VCKYPA1HF473Z	J	AB	0.047 µF,50V
CU56	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
CU57	VCTYPA1CX104K	J	AB	0.1 µF,16V
CU58	VCTYPA1CX103K	J	AA	0.01 µF,16V
CU59	VCTYBT1CY103M	J	AA	0.01 µF,16V
CU60	VCTYBT1HB102K	J	AA	0.001 µF,50V
CU61	VCCSPA1HL820J	J	AA	82 pF,50V

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
CU65,66	VCCSPA1HL331J	J	AA	330 pF,50V
CV07~10	VCQYKA1HM222K	J	AA	0.0022 µF,50V,Mylar
CV11	VCKYPA1HB102K	J	AA	0.001 µF,50V
CV70	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
CV71	VCKYPA1HF223Z	J	AB	0.022 µF,50V
CV72	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
CV73	VCEAZA1CW476M	J	AB	47 µF,16V,Electrolytic
CV74	VCEAZA1EW106M	J	AB	10 µF,25V,Electrolytic
CV75,76	VCFYHA1HA104J	J	AB	0.1 µF,50V,Thin Film
CV77	VCTYBT1CY103M	J	AA	0.01 µF,16V
CV78	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CV79	VCEAZA1EW476M	J	AB	47 µF,25V,Electrolytic
CV80	VCTYBT1CX222M	J	AA	0.0022 µF,16V
CV81	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CV82	VCKYBT1HB102K	J	AA	0.001 µF,50V
CV83	VCEAZA1CW336M	J	AB	33 µF,16V,Electrolytic
CV84	VCQYKA1HM102K	J	AA	0.001 µF,50V,Mylar
CV85	VCKYPA1HF223Z	J	AB	0.022 µF,50V
CV88	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CV90	VCTYBT1CX222M	J	AA	0.0022 µF,16V
CV93	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CV94	RC-EZD476AF1E	J	AC	47 µF,25V,Electrolytic
CV95,96	VCTYBT1CX222M	J	AA	0.0022 µF,16V
R1707	VCCCCY1HH331J	J	AA	330 pF (CH),50V
R1710	VCCCCY1HH331J	J	AA	330 pF (CH),50V

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4×3.5mm,Ivory
	VRS-CY1JB000J	J	AA	0 ohm,Jumper,0.8×1.55mm,Green
	VRS-TV2AB000J	J	AA	0 ohm,Jumper,1.25×2mm,Green
R601	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R602	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R603	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R604,605	VRD-RT2HD221J	J	AA	220 ohms,1/2W
R608	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R609	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R610	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R611,612	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R614	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R615	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R616	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R617	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R618	VRD-ST2CD474J	J	AA	470 kohms,1/6W
R619,620	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R621	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R622	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R625	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R626	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R800	VRD-ST2EE391J	J	AA	390 ohms,1/4W
R805	VRD-RT2HD220J	J	AA	22 ohms,1/2W
R806	VRD-RT2HD151J	J	AA	150 ohms,1/2W
R807,808	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R809,810	VRD-ST2EE122J	J	AA	1.2 kohms,1/4W
R811	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R812	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R813	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R821	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R822	VRD-ST2EE121J	J	AA	120 ohms,1/4W
R823	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R824	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R825,826	VRD-ST2EE271J	J	AA	270 ohms,1/4W
R827,828	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R830,831	VRS-VV3AA331J	J	AB	330 ohms,1W
R832	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R836	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R838	VRD-VV3DA100J	J		10 ohm,2W
R901	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R902	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R1100	VRS-TQ2BB270J	J	AA	27 ohms,1/8W
R1101	VRS-CY1JB1R0J	J	AA	1 ohm,1/16W
R1102	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R1105	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R1110	VRS-CY1JB684F	J	AA	680 kohms,1/16W
R1111,1112	VRS-CY1JB104F	J	AA	100 kohm,1/16W
R1113	VRS-CY1JB684F	J	AA	680 kohms,1/16W
R1114	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R1115	VRS-CY1JB334F	J	AA	330 kohms,1/16W
R1116,1117	VRS-CY1JB473F	J	AA	47 kohms,1/16W
R1118	VRS-CY1JB334F	J	AA	330 kohms,1/16W
R1119	VRS-CY1JB224J	J	AA	220 kohms,1/16W
R1120	VRS-CY1JB564J	J	AA	560 kohms,1/16W
R1121	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R1122,1123	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R1124,1125	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R1201	VRS-CY1JB563F	J	AA	56 kohms,1/16W
R1203	VRS-CY1JB104F	J	AA	100 kohm,1/16W
R1205	VRS-CY1JB683J	J	AA	68 kohms,1/16W
R1207	VRS-CY1JB393J	J	AA	39 kohms,1/16W
R1208	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R1209	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R1210,1211	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R1212	VRS-CY1JB470J	J	AA	47 ohms,1/16W
R1214	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R1215	VRS-CY1JB105J	J	AA	1 Mohm,1/16W
R1217	VRS-CY1JB151J	J	AA	150 ohms,1/16W
R1221,1222	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R1230,1231	VRS-CY1JB103F	J	AA	10 kohm,1/16W
R1261~1266	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R1300	VRS-TV2AB6R8J	J	AA	6.8 ohms,1/10W
R1301	VRS-CY1JB100J	J	AA	10 ohm,1/16W
R1304	VRS-TV2AB151J	J	AA	150 ohms,1/10W
R1401	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
R1403	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R1405	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R1406	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R1407,1408	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R1414	VRS-CY1JB224J	J	AA	220 kohms,1/16W
R1415	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R1417,1418	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R1420	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R1424	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R1430	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R1435	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R1440	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R1441	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R1443	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R1444	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R1460	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R1463	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R1510	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R1511	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R1512	VRS-TV2AB470J	J	AA	47 ohms,1/10W
R1513	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R1515,1516	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
R1517,1518	VRS-CY1JB470J	J	AA	47 ohms,1/16W
R1520	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R1521	VRS-CY1JB121J	J	AA	120 ohms,1/16W
R1523	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R1526	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R1527	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R1529	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R1532	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R1533~1536	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R1537,1538	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R1539	VRS-CY1JB121J	J	AA	120 ohms,1/16W
R1561	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R1601	VRS-CY1JB123F	J	AA	12 kohms,1/16W
R1605	VRS-CY1JB123F	J	AA	12 kohms,1/16W
R1612	VRS-CY1JB563J	J	AA	56 kohms,1/16W
R1614	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R1616	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R1618	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R1621	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R1622,1623	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R1624	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R1701	VRS-CY1JB154J	J	AA	150 kohms,1/16W
R1702	VRS-CY1JB124J	J	AA	120 kohms,1/16W
R1703	VRS-CY1JB102F	J	AA	1 kohm,1/16W
R1704	VRS-CY1JB332F	J	AA	3.3 kohms,1/16W
R1705	VRS-CY1JB821J	J	AA	820 ohms,1/16W
R1708	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R1711	VRS-TV2AB120J	J	AA	12 ohms,1/10W
R1712	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R1714	VRS-TV2AB120J	J	AA	12 ohms,1/10W
R1716	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R1801	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R1802	VRS-CY1JB563J	J	AA	56 kohms,1/16W
R1803	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R1804	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R1805	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R1806	VRS-TQ2BB1R0J	J	AA	1 ohm,1/8W
R1807	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R1808	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W

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NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R1809	VRS-TQ2BB1R0J	J	AA	1 ohm,1/8W
R1811	VRS-TQ2BB1R0J	J	AA	1 ohm,1/8W
R1930	VRS-TV2AB391J	J	AA	390 ohms,1/10W
R1931	VRS-TV2AB561J	J	AA	560 ohms,1/10W
R1932	VRS-TV2AB121J	J	AA	120 ohms,1/10W
R1933	VRS-TV2AB271J	J	AA	270 ohms,1/10W
RA100,101	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
RA102,103	VRS-CY1JB203J	J	AA	20 kohms,1/16W
RA104,105	VRS-CY1JB753D	J	AA	75 kohms,1/16W
RA108,109	VRS-CY1JB753D	J	AA	75 kohms,1/16W
RA112~115	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
RA116	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RA117~120	VRS-CY1JB224J	J	AA	220 kohms,1/16W
RA125,126	VRS-CY1JB222D	J	AA	2.2 kohms,1/16W
RA127~130	VRS-CY1JB561D	J	AB	560 ohms,1/16W
RA131,132	VRS-CY1JB222D	J	AA	2.2 kohms,1/16W
RA153	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RA154	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
RA165~172	VRS-CY1JB101J	J	AA	100 ohm,1/16W
RA173,174	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
RA175,176	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
RA177,178	VRS-CY1JB271J	J	AA	270 ohms,1/16W
RA179,180	VRS-CY1JB391J	J	AA	390 ohms,1/16W
RA181~184	VRS-CY1JB124D	J	AA	120 kohms,1/16W
RA202	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RA280,281	VRS-CY1JB821D	J	AA	820 ohms,1/16W
RA282~285	VRS-CY1JB121D	J	AB	120 ohms,1/16W
RA286,287	VRS-CY1JB821D	J	AA	820 ohms,1/16W
RA301~304	VRS-CY1JB100J	J	AA	10 ohm,1/16W
RA305~308	VRS-TV2AB100J	J	AA	10 ohm,1/10W
RA311~314	VRS-TV2AB100J	J	AA	10 ohm,1/10W
RA315~318	VRS-CY1JB100J	J	AA	10 ohm,1/16W
RA321~324	VRS-CY1JB100J	J	AA	10 ohm,1/16W
RA325~328	VRS-TV2AB100J	J	AA	10 ohm,1/10W
RA331~334	VRS-TV2AB100J	J	AA	10 ohm,1/10W
RA335~338	VRS-CY1JB100J	J	AA	10 ohm,1/16W
RA339	VRS-CY1JB473J	J	AA	47 kohms,1/16W
RA340,341	VRS-VV3LA470J	J	AC	47 ohms,1W
RA342	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RD01	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD02,03	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD04,05	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD06	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD07,08	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD09	VRD-ST2CD331J	J	AA	330 ohms,1/6W
RD10~12	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD13	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD14~16	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD17	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD18,19	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD20,21	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD22~29	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD31~37	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD39	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RD41,42	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD43,44	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD45,46	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD47	VRD-ST2CD821J	J	AA	820 ohms,1/6W
RD49	VRD-ST2CD561J	J	AA	560 ohms,1/6W
RD50	VRD-MN2BD224J	J	AA	220 kohms,1/8W
RD52,53	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD54	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD56	VRD-ST2CD180J	J	AA	18 ohms,1/6W
RD57	VRD-ST2CD220J	J	AA	22 ohms,1/6W
RD58	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD60	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD61	VRD-ST2CD123J	J	AA	12 kohms,1/6W
RD62~64	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD66,67	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD69,70	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RD71	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RD72	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD74	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RD76	VRD-ST2CD561J	J	AA	560 ohms,1/6W
RD78	VRD-ST2CD223J	J	AA	22 kohms,1/6W
RD81,82	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD83,84	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD85	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD86	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
RD87	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD88	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
RD89	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
RD90	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
RD91	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
RD92	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RD93	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RD94	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD95	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD96	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
RD97	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
RD98	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
RD99	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
RE01	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
RE02~17	VRD-MN2BD473J	J	AA	47 kohms,1/8W
RE18	VRD-ST2EE561J	J	AA	560 ohms,1/4W
RE19,20	VRD-ST2EE391J	J	AA	390 ohms,1/4W
RE21	VRD-ST2EE561J	J	AA	560 ohms,1/4W
RE22,23	VRD-ST2EE391J	J	AA	390 ohms,1/4W
RE24~27	VRD-ST2CD821J	J	AA	820 ohms,1/6W
RE32	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RE34	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RE35	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RE36,37	VRD-ST2CD151J	J	AA	150 ohms,1/6W
RE38	VRD-ST2CD224J	J	AA	220 kohms,1/6W
RE40	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
RE41	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RE42,43	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
RE44	VRD-MN2BD473J	J	AA	47 kohms,1/8W
RE46,47	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RE48	VRD-MN2BD223J	J	AA	22 kohms,1/8W
RE50	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RE51	VRD-ST2CD821J	J	AA	820 ohms,1/6W
RE52	VRD-ST2CD471J	J	AA	470 ohms,1/6W
RE53	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RE54	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RE55	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
RE56~59	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RE60,61	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RE62	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RP01,02	VRD-MN2BD223J	J	AA	22 kohms,1/8W
RP03,04	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RP05,06	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RP07,08	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RP11,12	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RP13,14	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RP15,16	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RP17,18	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
RP19,20	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RP21,22	VRD-ST2EE180J	J	AA	18 ohms,1/4W
RP23	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RP24	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RP25,26	VRD-ST2EE220J	J	AA	22 ohms,1/4W
RP27,28	VRD-ST2EE181J	J	AA	180 ohms,1/4W
RP30	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RP31,32	VRD-MN2BD471J	J	AA	470 ohms,1/8W
RP33,34	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RP37,38	VRD-ST2CD101J	J	AA	100 ohm,1/6W
RP51	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RP52	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RP53,54	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RP55,56	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RP61,62	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RP63,64	VRD-ST2EE821J	J	AA	820 ohms,1/4W
RS01,02	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RS03,04	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RS05,06	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RS07,08	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RS09,10	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RS11,12	VRD-ST2CD821J	J	AA	820 ohms,1/6W
RS13,14	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RS17	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RS18,19	VRD-ST2EE221J	J	AA	220 ohms,1/4W
RT26	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RT28,29	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RT30	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RT35~37	VRD-MN2BD224J	J	AA	220 kohms,1/8W
RT39	VRD-MN2BD224J	J	AA	220 kohms,1/8W
RT40	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RU01,02	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RU05~08	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RU09,10	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
RU11,12	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RU17	VRD-ST2CD273J	J	AA	27 kohms,1/6W
RU18	VRD-MN2BD103J	J	AA	10 kohm,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
RU20	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RU21,22	VRD-MN2BD471J	J	AA	470 ohms,1/8W
RU23,24	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RU30~32	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RU33,34	VRD-RT2HD560J	J	AA	56 ohms,1/2W
RU59	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RU68	VRD-ST2CD391J	J	AA	390 ohms,1/6W
RU69	VRD-ST2CD101J	J	AA	100 ohm,1/6W
RU70	VRD-ST2CD221J	J	AA	220 ohms,1/6W
RU71	VRD-ST2CD750J	J	AA	75 ohms,1/6W
RU72	VRD-MN2BD563J	J	AA	56 kohms,1/8W
RU73	VRD-ST2CD243J	J	AA	24 kohms,1/6W
RU74	VRD-ST2CD512J	J	AA	5.1 kohms,1/6W
RU75	VRD-MN2BD123J	J	AA	12 kohms,1/8W
RU76	VRD-ST2CD151J	J	AA	150 ohms,1/6W
RU77~79	VRD-ST2CD101J	J	AA	100 ohm,1/6W
RU81	VRD-ST2CD101J	J	AA	100 ohm,1/6W
RU82	VRD-MN2BD101J	J	AA	100 ohm,1/8W
RU83	VRD-ST2EE391J	J	AA	390 ohms,1/4W
RU84	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RU85	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
RU87	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RU88	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RU89	VRD-MN2BD181J	J	AA	180 ohms,1/8W
RU91,92	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RU93,94	VRD-ST2CD471J	J	AA	470 ohms,1/6W
RU95,96	VRD-ST2CD273J	J	AA	27 kohms,1/6W
RU97,98	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RV37~39	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RV40~42	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RV46	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RV47	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RV48	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RV49	VRD-RT2HD221J	J	AA	220 ohms,1/2W
RV50	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RV51	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RV53	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RV54	VRD-ST2CD124J	J	AA	120 kohms,1/6W
RV55	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RV56	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RV57	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RV58	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RV59,60	VRD-ST2CD223J	J	AA	22 kohms,1/6W
RV61~64	VRD-ST2CD153J	J	AA	15 kohms,1/6W
RV65,66	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RV67	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RV68,69	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RV70	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RV71	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RV72	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RV73	VRN-RT2CC184F	J	AA	180 kohms,1/6W,Metal Film
RV75	VRD-ST2CD224J	J	AA	220 kohms,1/6W
RV76	VRN-RT2CC184F	J	AA	180 kohms,1/6W,Metal Film
RV78,79	VRN-RT2CC103F	J	AA	10 kohms,1/6W,Metal Film
RV80,81	VRN-RT2CC562F	J	AA	5.6 kohms,1/6W,Metal Film
RV82,83	VRN-RT2CC153F	J	AA	15 kohms,1/6W,Metal Film
RV84,85	VRS-VV3AAR20J	J	AB	0.2 ohms,1W
RV86	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RV87	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RV88,89	VRN-RT2CC184F	J	AA	180 kohms,1/6W,Metal Film
RV90,91	VRN-RT2CC103F	J	AA	10 kohms,1/6W,Metal Film
RV92,93	VRN-RT2CC562F	J	AA	5.6 kohms,1/6W,Metal Film
RV94,95	VRN-RT2CC153F	J	AA	15 kohms,1/6W,Metal Film
RV96,97	VRS-VV3AAR20J	J	AB	0.2 ohms,1W
RV98	VRD-ST2CD102J	J	AA	1 kohm,1/6W

OTHER CIRCUITRY PARTS

BI650/CNS650	QCNWN1945AWZZ	J		Connector Ass'y,3/3Pin
BI800/CNS803	QCNWN1801AWZZ	J	AD	Connector Ass'y,2/2Pin
BI801/CNS800	QCNWN1800AWZZ	J	AF	Connector Ass'y,7/7Pin
BI802/CNS806	QCNWN1787AWZZ	J	AE	Connector Ass'y,4/4Pin
BIA106/CNSA106	QCNWN1792AWZZ	J	AF	Connector Ass'y,3/3Pin
BIA110/CNSA110	QCNWN1793AWZZ	J	AF	Connector Ass'y,4/4Pin
BIA111/CNSA111	QCNWN1794AWZZ	J	AE	Connector Ass'y,3/3Pin
BIA112/CNSA112	QCNWN1795AWZZ	J	AF	Connector Ass'y,5/5Pin
BID01/CNSD01	QCNWN1785AWZZ	J	AF	Connector Ass'y,4/4Pin
BID02	QCNWN1786AWZZ	J	AC	Flat Wire,3Pin
BID03/CNSD03	QCNWN1778AWZZ	J	AF	Connector Ass'y,5/5Pin
BID04/CNSD04	QCNWN1802AWZZ	J	AG	Connector Ass'y,7/7Pin
BID06	QCNWN1784AWZZ	J	AF	Flat Wire,5Pin
BIU11/CNSU11	QCNWN1780AWZZ	J	AE	Connector Ass'y,3/3Pin
BIU12/CNSU12	QCNWN1782AWZZ	J	AE	Connector Ass'y,3/3Pin
CN1101	QCNCWYK28AFZZ	J	AH	Socket,28Pin
CN1300	QCNCM970BAFZZ	J	AD	Plug,2Pin
CN1401	QCNCWXC05AFZZ	J	AC	Plug,5Pin
CN1402	QCNCWXC06AFZZ	J	AD	Plug,6Pin
CN1501	QCNCWYR28AWZZ	J	AF	Socket,28Pin
CN1502	QCNCM970DAFZZ	J	AE	Plug,4Pin
CN1931	QCNCWXC05AFZZ	J	AC	Plug,5Pin
CN1932	QCNCWXC06AFZZ	J	AD	Plug,6Pin
CNP601	QCNCM010HAWZZ	J	AC	Plug,8Pin
CNP602	QCNCM010UAWZZ	J	AD	Plug,19Pin
CNP603	QCNCM010NAWZZ	J	AC	Plug,13Pin
CNP604	92LCONE2P53254	J	AB	Plug,2Pin
CNP605	92LCONE2P53253	J	AB	Plug,2Pin
CNP800	92LCONE7P5267X	J	AC	Plug,7Pin
CNP801	92LCONE3P5267X	J	AB	Plug,3Pin
CNP802	92LCONE5P53254	J	AB	Plug,5Pin
CNP803	92LCONE2P53253	J	AB	Plug,2Pin
CNP804	QCNCM010HAWZZ	J	AC	Plug,8Pin
CNP805	QCNCM010GAWZZ	J	AC	Plug,7Pin
CNP806	92LCONE4P53253	J	AB	Plug,4Pin
CNPD01	92LCONE5P53253	J	AB	Plug,5Pin
CNPD02	92LCONE4P53254	J	AC	Plug,4Pin
CNPU04	QCNCWYW28AWZZJ		AK	Socket,28Pin
CNPU05	QCNCWZP15AWZZ	J	AC	Socket,15Pin
CNPU06	QCNCWYW26AWZZJ		AE	Socket,26Pin
CNPU07	QCNCM705DAFZZ	J	AB	Plug,4Pin
CNPU08	92LCONE2P53253	J	AB	Plug,2Pin
CNPU09	92LCONE3P53253	J	AB	Plug,3Pin
CNPU10	92LCONE7P53254	J	AB	Plug,7Pin
CNPU11	92LCONE3P53253	J	AB	Plug,3Pin
CNPU12	QCNCM705CAFZZ	J	AA	Plug,3Pin
CNPU13	QCNCM705BAFZZ	J	AA	Plug,2Pin
CNPV97	QCNCM704CAFZZ	J	AB	Plug,3Pin
CNPV98	92LCONE3P53254	J	AB	Test Point,3Pin
CNPV99	92LCONE4P5268	J	AC	Plug,4Pin
CNS604,605	QCNWN1939AWZZ	J	AD	Socket,2Pin
CNSU01	QCNCW010HAWZZ	J	AD	Socket,8Pin
CNSU02	QCNCW010UAWZZ	J	AD	Plug,19Pin
CNSU03	QCNCW010NAWZZ	J	AC	Socket,13Pin
CNSU08	QCNWN1783AWZZ	J	AE	Connector Ass'y,2Pin
CNSU13	QCNWN1781AWZZ	J	AC	Connector Ass'y,2Pin
CNSV94	QCNCW010HAWZZ	J	AD	Socket,8Pin
CNSV95	QCNCW010GAWZZ	J	AC	Socket,7Pin
CNSV97	————		—	Connector,Ass'y,3Pin (Supplies at Ref No.M905)
CORA1~3	RCORF0018AWZZ	J	AG	Core
CORE1	RCORF0015AWZZ	J	AB	Core
CW1501	QCNWN1549AWZZ	J	AQ	Flat Cable,28Pin
CW1502/CNSU07	QCNWN1515AWZZ	J	AK	Connector Ass'y,4/4Pin
CW1931	QCNWN1512AWZZ	J	AC	Flat Cable,5Pin
CW1932	QCNWN1513AWZZ	J	AC	Flat Cable,6Pin
⚠ F801,802	QFS-D632CAWNI	J	AC	Fuse,T6.3A L 250V
⚠ F803	QFS-D252CAWNI	J	AC	Fuse,T2.5A L 250V
⚠ F804	QFS-D122CAWNI	J	AC	Fuse,T1.25A L 250V
FLD01	VVKHNA13LS3-1	J	BB	FL Display
FWC01	QCNWN1777AWZZ	J	AG	Flat Cable,26Pin
FWT01	QCNWN1776AWZZ	J	AD	Flat Cable,15Pin
JHP01	92LJACKH1759A	J	AF	Jack,Headphones
JT900	QSOCJ0223AWZZ	J	AD	Terminal,SYSTEM IN
JTP01	QSOCJ0605AWZZ	J	AF	Terminal,SYSTEM OUT/LINE OUT/AUX IN
K01	QLUGP0002AWZZ	J	AB	Lug Terminal
M901	RMOTV0038AWZZ	J	AT	MD Spindle Motor Ass'y
M902	92LMTR3167BASY	J	AP	MD Sled Motor Ass'y
M903	92LMTR3167AASY	J	AN	MD Loading Motor Ass'y
M904	RMOTV0039AWZZ	J	AM	MD/CD Lid Motor
M905	RMOTV0036AWZZ	J	AX	Motor,Air Cooling Fan (With CNSV97)
M906(267-1)	9HGSMA-146-100	J		Motor with Gear [Sled]
M907(267-2)	9HGSMA-147-100	J		Motor with Gear [Loading]
M908(267-3)	9HGSMA-151-100	J		Motor with Turntable/Flexible PWB [Spindle]
PHCU01	VHPRPI352++-1	J	AF	Photo Interrupter
RL800	RRLYD0011AWZZ	J	AE	Relay
⚠ RL900	RRLYD0004SJZZ	J	AG	Relay
RLV99	RRLYD0014AWZZ	J	AK	Relay
RMD01	VHLN63H380A-1	J	AK	Remote Sensor,N63H380A
SO605	QCNCM052MAWZZ	J	AQ	Terminal,SYSTEM CONTROL
⚠ SO900	QSOCA0212AWZZ	J	AD	Socket,AC Input
SOV90	QCNCM052MAWZZ	J	AQ	Terminal,SYSTEM CONTROL
SOV99	QTANA0414AWZZ	J	AD	Terminal,Speaker

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
SW1930	QSW-P0011AWZZ	J	AD	Switch,Push Type [Write Pro]
SW1931	QSW-P0012AWZZ	J	AD	Switch,Push Type [Disc Media]
SW1932	QSW-M0007AWZZ	J	AD	Switch,Push Type [Loading]
SW1933	QSW-M0007AWZZ	J	AD	Switch,Push Type [Record]
SW1934	QSW-M0007AWZZ	J	AD	Switch,Push Type [Play]
SW1936	QSW-M0157AFZZ	J	AD	Switch,Push Type [Lead In]
SWD02	92LSWICHT1663T	J	AC	Switch,Key Type [On/Stand-by]
SWD03	92LSWICHT1663T	J	AC	Switch,Key Type [Tuner (Band)]
SWD04	92LSWICHT1663T	J	AC	Switch,Key Type [Aux (Demo)]
SWD05	92LSWICHT1663T	J	AC	Switch,Key Type [CD Up/Tuning Up]
SWD06	92LSWICHT1663T	J	AC	Switch,Key Type [CD Down/Tuning Down]
SWD07	92LSWICHT1663T	J	AC	Switch,Key Type [CD Play/Pause]
SWD08	92LSWICHT1663T	J	AC	Switch,Key Type [CD Stop]
SWD09	92LSWICHT1663T	J	AC	Switch,Key Type [CD Eject]
SWD10	92LSWICHT1663T	J	AC	Switch,Key Type [+10]
SWD11	92LSWICHT1663T	J	AC	Switch,Key Type [Volume Down]
SWD12	92LSWICHT1663T	J	AC	Switch,Key Type [Volume Up]
SWD13	92LSWICHT1663T	J	AC	Switch,Key Type [Door Open/Close]
SWD14	92LSWICHT1663T	J	AC	Switch,Key Type [MD Rec]
SWD15	92LSWICHT1663T	J	AC	Switch,Key Type [MD Stop]
SWD16	92LSWICHT1663T	J	AC	Switch,Key Type [MD Play/Pause]
SWD17	92LSWICHT1663T	J	AC	Switch,Key Type [MD Down]
SWD18	92LSWICHT1663T	J	AC	Switch,Key Type [MD Up]
SWD19	92LSWICHT1663T	J	AC	Switch,Key Type [MD Eject]
SWD20	92LSWICHT1663T	J	AC	Switch,Key Type [Play Mode]
SWD21	92LSWICHT1663T	J	AC	Switch,Key Type [Erase]
SWD23	QSW-B0004AWZZ	J	AF	Switch,Lever Type [Open/Close]
SWD24	92LSWICHT1663T	J	AC	Switch,Key Type [Rec Mode]
TUN1	RTUNS0021AWZZ	J		Tuner Unit

MD MECHANISM PARTS

2	LCHSM0089AWZZ	J	AH	Drive Chassis (A)
3	LCHSM0090AWZZ	J	AH	Drive Chassis (B)
4	LHLDX3009AWM1	J	AG	Cartridge Holder Ass'y
5	MLEVF0051AWM1	J	AK	Slider Lever Ass'y
7	MLEVF0046AWFW	J	AE	Arm,Holder
8	MLEVF0047AWFW	J	AC	Plate,Switch
9	MLEVF0054AWFW	J	AC	Lever,Shift
10	MLEVP0095AWZZ	J	AC	Lever,Cam Plate
12	MSPRD0132AWFJ	J	AB	Spring,Roading
14	MSPRP0030AWFJ	J	AB	Spring,Grip
15	MSPRP0031AWFJ	J	AC	Spring,Shaft
16	MSPRT0031AWFJ	J	AC	Spring,Roading Arm
17	MSPRT0032AWFJ	J	AB	Spring,Shift Arm
18	NGERH0085AWZZ	J	AC	Gear,Loading (A)
19	NGERH0086AWZZ	J	AB	Gear,Middle (A)
20	NGERH0087AWZZ	J	AB	Gear,Middle (B)
21	NGERH0088AWZZ	J	AC	Gear,Middle (C)
22	NGERH0089AWZZ	J	AC	Gear,Middle (D)
24	NGERR0004AWZZ	J	AC	Gear,Grip
27	NSFTD0006AWM1	J	AG	Drive Shaft Ass'y
28	NSFTM0019AWFW	J	AC	Shaft,Pickup Slide
30	PCOVS3029AWFW	J	AG	Cover,Shield,Top
31	PCOVS3033AWFW	J	AF	Cover,Shield,Side
32	PCOVS3031AWFW	J	AG	Cover,Shield,Bottom
33	PCUSG0045AWZZ	J	AC	Cushion,Shield Cover
34	RCILH0113AFZZ	J	AS	Magnetic Head
⚠ 35	RCTRH8198AFZZ	J	BM	MD Pickup Unit Ass'y
36	MSPRT0034AWFJ	J	AB	Spring,Ground
501	LX-BZ0040AWZZ	J	AB	Screw,ø1.4×1.5mm
502	LX-BZ0046AWZZ	J	AB	Screw,ø2×2mm
503	LX-BZ0800AFZZ	J	AA	Screw,ø1.4×2.5mm
504	LX-BZ0883AFZZ	J	AB	Screw,ø1.7×5mm
505	LX-JZ0020AWZZ	J	AB	Screw,ø1.4×3mm
506	LX-JZ0022AWZZ	J	AB	Screw,ø1.7×6mm
507	LX-JZ0024AWZZ	J	AB	Screw,ø1.4×4.5mm
509	XBPSD20P03K00	J	AB	Screw,ø2×3mm
510	XSPSN17P03K00	J	AB	Screw,ø1.7×3mm
511	XWSSD14-05000	J	AA	Washer,ø1.4×0.5mm
512	LX-BZ0846AFZZ	J	AB	Screw,ø1.7×3mm
513	LX-JZ0025AWZZ	J	AB	Screw,ø1.4×5mm
M901	RMOTV0038AWZZ	J	AT	MD Spindle Motor Ass'y
M902	92LMTR3167BASY	J	AP	MD Loading Motor Ass'y
M903	92LMTR3167AASY	J	AN	MD Sled Motor Ass'y
SW1930	QSW-P0011AWZZ	J	AD	Switch,Push Type [Write Pro]
SW1931	QSW-P0012AWZZ	J	AD	Switch,Push Type [Disc Media]
SW1932	QSW-M0007AWZZ	J	AD	Switch,Push Type [Loading]
SW1933	QSW-M0007AWZZ	J	AD	Switch,Push Type [Record]
SW1934	QSW-M0007AWZZ	J	AD	Switch,Push Type [Play]
SW1936	QSW-M0157AFZZ	J	AD	Switch,Push Type [Lead In]

CABINET PARTS

201	92LCAB3514AASY	J	AY	Front Cabinet Ass'y
201- 1	————		—	Front Cabinet (Not Replacement Item)
201- 2	GDAI-1001AWSA	J	AP	Leg Cabinet
202	92LCAB3514CASY	J	AW	Top Cabinet Ass'y
202- 1	————		—	Top Cabinet (Not Replacement Item)
202- 2	JKNBZ0774AWSA	J	AF	Button,CD
202- 3	JKNBZ0775AWSA	J	AH	Button,MD
203	92LCAB3665DASY	J		MD/CD Lid Cabinet Ass'y
203- 1	————		—	MD/CD Lid Cabinet (Not Replacement Item)
203- 2	GDORT0024AWSA	J	AH	Door,MD
203- 3	MSPRT0052AWZZ	J	AB	Spring,MD Door
204	92LPNL3514AASY	J	AR	Display Window Ass'y
205	DUNTZ3514AW01	J	AX	MD/CD Lid Gear Ass'y
205- 1	LANGK0241AWFW	J	AD	Panel,Gear Box Cover
205- 2	LANGK0242AWFW	J	AF	Bracket,Motor
205- 3	LHLDZ1321AWZZ	J	AG	Gear Box,A
205- 4	NGERH0136AWZZ	J	AG	Drive Gear,A
205- 5	NGERH0137AWZZ	J	AD	Drive Gear,B
205- 6	NGERH0138AWZZ	J	AH	Drive Gear,C
205- 7	NGERW0017AWZZ	J	AD	Gear,Worm
205- 8	PSPAZ0026AWZZ	J	AC	Spacer,Worm
206	GCABB1224AWSA	J	AN	Rear Cabinet (Amp)
207	GCOVA3015AWSA	J	BQ	Decoration Panel,Front
208	GCOVA3016AWSA	J	BQ	Decoration Panel,Front Aluminium
209	GDAI-1002AWSA	J	AM	Leg Cabinet (Amp)
210	GITAR0650AWSA	J	AM	Rear Panel
211	GITAR0653AWSA	J	AM	Rear Panel (Amp)
212	HBDGB3107AFSA	J	AL	Badge,SHARP
213	HDECE0002AWSA	J	BD	Decoration Plate,Lid
214	HDECQ0736AWSA	J	AD	Digital Indicator
215	HDECQ0659AWSA	J	AN	Lighting Plate
216	HDECQ0661AWSA	J	AK	Lid
217	HPNLC1278AWSA	J	AS	Front Cabinet (Amp)
218	LANGF0052AWFW	J	AF	Bracket,Rear Support
219	LANGT0042AWFW	J	AC	Bracket,Power PWB
220	LANGT0115AWSA	J		Bracket,Bottom
221	LANGT0093AWFW	J	AD	Bracket,MD (Left)
222	LANGT0094AWFW	J	AD	Bracket,MD (Right)
223	LANGT0095AWFW	J	AD	Bracket,CD (Left)
224	LANGT0096AWFW	J	AE	Bracket,CD (Right)
225	LANGT0101AWFW	J	AE	Bracket,Fan (Amp)
226	LANGT0102AWFW	J	AE	Bracket,1-Bit Amp
227	LCHSM0119AWFW	J	AL	Main Chassis (Amp)
228	LHLDZ1297AWSA	J	AE	FL Holder
229	LHLDZ1301AWSA	J	AC	Holder,Lighting (A)
230	LHLDZ1302AWSA	J	AC	Holder,Lighting (B)
231	LHLDZ1304AW00	J	AM	MD/CD Block Frame
232	LHLDZ1305AWZZ	J	AD	Holder,LED (B)
233	LHLDZ1306AWZZ	J	AD	Holder,LED (C)
234	LHLDZ1317AWZZ	J	AC	Holder,LED
235	LHLDZ1325AWZZ	J	AC	Holder,Edge
236	LHLDZ1329AWZZ	J	AE	Holder,PWB
237	NGERH0131AW00	J	AE	Gear,Lid
238	PCUSG0022AWZZ	J	AB	Cushion,Leg
239	PRDAR0197AWFW	J		Heat Sink
240	PRDAR0180AWFW	J	AP	Heat Sink,Main (Amp)
241	PRDAR0185AWFW	J	AK	Heat Sink,A (Amp)
242	PRDAR0186AWFW	J	AH	Heat Sink,B (Amp)
243	PSHEP0047AWZZ	J	AD	Sheet,Display Window
244	PSHEP0048AWZZ	J	AF	Sheet,CD Lid
245	PSHEP0049AWZZ	J	AH	Sheet,LED Decoration Panel
246	PSHEP0052AWZZ	J	AD	Sheet,Insulator A
247	PSHEP0053AWZZ	J	AD	Sheet,Insulator B
248	PSHEP0058AWSA	J	AC	Sheet,Screw Cover
249	PSHEP0059AWSA	J	AD	Sheet,Lid Decoration
250	PSLDM3079AWFE	J	AQ	Shield Case,A
251	PSLDM3080AWFW	J	AK	Shield Case,B
252	PSLDM3081AWZZ	J	AH	Shield,Amp A
⚠ 254	QFSHD0001AWZZ	J	AB	Holder,Fuse
255	92LNBAND1318A	J	AA	Nylon Band,80mm
256	92LRDAT1468B	J	AE	Heat Sink,Sub
257	TSPC-0856AWZZ	J		Label,Specifications (Main) [Except for U.K.]

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
257	TSPC-0857AWZZ	J	AC	Label,Specifications (Main) [For U.K.]
258	TSPC-0859AWZZ	J		Label,Specifications (Amp) [Except for U.K.]
258	TSPC-0860AWZZ	J	AB	Label,Specifications (Amp) [For U.K.]
259	————		—	Lug Wire (Supplies at Ref No.CNS604,605)
260	PSPAI0020AWZZ	J	AC	Spacer,Headphones Jack
261	PCUSG0077AWZZ	J	AH	Cushion,Heat (Amp)
262	RCORF0018AWZZ	J	AG	Core
263	QCNWN1803AWZZ	J	AD	Lug Wire
264	PCUSG0001AWSA	J	AD	Cushion,B
265	PCUSU0005AWZZ	J	AC	Cushion,Fan
266	PFLT-0047AWZZ	J	AB	Felt
267	KRPLE0110AFZZ	J		CD Mechanism Ass'y
267- 1(M906)	9HGSMA-146-100	J		Motor with Gear [Sled]
267- 2(M907)	9HGSMA-147-100	J		Motor with Gear [Loading]
267- 3(M908)	9HGSMA-151-100	J		Motor with Turntable/Flexible PWB [Spindle]
267- 4	9HGHBS-432-100	J		Gear with Housing Base [Pickup Lead]
⚠ 267- 5	9HG969-0008-00	J		Pickup Unit
267- 6(PWB-F)	9HGHBS-501-100	J	—	CD Servo PWB Ass'y
268	PCUSG0062AWZZ	J	AC	Cover,Lid Cushion
269	QHSW-0004AWZZ	J		Lug
270	PSPAZ0039AWZZ	J	AC	Spacer
271	PFLT-0048AWZZ	J	AB	Felt
272	QCNWN1965AWZZ	J		Lug Wire
273	QCNWN1966AWZZ	J		Lug Wire
274	MSPRP0056AWFW	J		Earth Plate
275	TCAUS0028AWZZ	J	AB	Label,Class 3B
601	LX-EZ0029AWFN	J	AB	Screw,ø2.6×10mm
602	LX-HZ0082AFZZ	J	AA	Screw,ø4×8mm
603	LX-JZ0010AFFD	J	AA	Screw,ø3×10mm
604	LX-JZ0033AFFF	J	AA	Screw,ø3×8mm
605	LX-WZ0014AGFK	J	AA	Washer,ø2.6mm
606	XBBSD20P03000	J	AA	Screw,ø2×3mm
607	XBBSD23P04J00	J	AC	Screw,ø2.3×4mm
608	XBBSD30P04J00	J	AB	Screw,ø3×4mm
609	XEBSD26P08000	J	AA	Screw,ø2.6×8mm
610	XEBSD30P08000	J	AA	Screw,ø3×8mm
611	XEBSD30P10000	J	AA	Screw,ø3×10mm
612	XEBSN30P10000	J	AA	Screw,ø3×10mm
613	XESSN26P08000	J	AA	Screw,ø2.6×8mm
614	XHBSF30P08000	J	AA	Screw,ø3×8mm
615	XHBSN30P08000	J	AA	Screw,ø3×8mm
616	XJBSD30P06000	J	AA	Screw,ø3×6mm
617	XJBSD30P08000	J	AA	Screw,ø3×8mm
618	XJBSD30P10000	J	AA	Screw,ø3×10mm
620	XJBSD30P25000	J	AB	Screw,ø3×25mm
621	XJBSF30P08000	J	AA	Screw,ø3×8mm
622	XJBSF30P10000	J	AA	Screw,ø3×10mm
623	XJBSN30P10000	J	AA	Screw,ø3×10mm
624	XJSSD30P06000	J	AA	Screw,ø3×6mm
625	XWHSD26-05100	J	AA	Washer,ø2.6×10×0.5mm
627	XWSSN32-07000	J	AB	Washer,ø3.2mm
628	XJBSD30P16000	J	AA	Screw,ø3×16mm
629	XEBSF30P10000	J	AA	Screw,ø3×10mm

ACCESSORIES/PACKING PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
⚠ 1	QACCB0008AW00	J	AW	AC Power Supply Cord [For U.K.]
⚠ 1	QACCE0007AW00	J	AH	AC Power Supply Cord [Except for U.K.]
2	QANTL0012AWZZ	J	AS	AM Loop Antenna
3	QCNWG0027AWZZ	J	BB	System Cord
4	QCNWG0031AWZZ	J		Pin Cord
5	RRMCG0256AWSA	J	AY	Remote Control
6	SPAKA0276AWZZ	J	AL	Packing Add.,Top (Main)
7	SPAKA0277AWZZ	J	AL	Packing Add.,Bottom (Main)
8	SPAKA0278AWZZ	J	AH	Packing Add.,Left (Amp)
9	SPAKA0279AWZZ	J	AH	Packing Add.,Right (Amp)
10	SPAKC1187AWZZ	J	AV	Packing Case
11	SPAKT0024AWZZ	J	AK	Inner Packing Case (Main)
12	SPAKT0025AWZZ	J	AL	Inner Packing Case (Amp)
13	SPAKZ0685AWZZ	J	AK	Packing Add.,Accessories
14	SPAKZ0688AWZZ	J	AD	Packing Add.,Front (Amp)
15	SPAKZ0689AWZZ	J	AE	Packing Add.,Rear (Main)
16	SSAKA0007AWZZ	J	AB	Polyethylene Bag,Accessories [For U.K.]
16	92LBAG1460C1	J	AB	Polyethylene Bag,Accessories [Except for U.K.]
17	92LBAG1770A	J	AB	Polyethylene Bag,AC Power Supply Cord [For U.K.Only]
18	SSAKH0046AWZZ	J	AD	Polyethylene Bag (Main)
19	SSAKH0047AWZZ	J	AC	Polyethylene Bag (Amp)
20	TGAN-3170UMZZ	J	AE	Warranty Card [For U.K.Only]
21	TINSE0363AWZZ	J	AH	Operation Manual [For U.K.]
21	TINSZ0666AWZZ	J	AU	Operation Manual [Except for U.K.]
22	TINSE0364AWZZ	J	AC	Quick Guide [For U.K.Only]
23	TLABH0061AWZZ	J		Label,Disc Caution [Except for U.K.]
24	TLABN0162AW01	J	AB	Label,VM No. (Amp)
25	TLABE0507AWZZ	J		Label,Bar Code
26	92LFANT1535A	J	AF	FM Antenna
27	————		—	Battery (Not Replacement Item)
28	TCAUZ0090AWZZ	J		Fan Caution
29	PSHEZ0123AWZZ	J	AN	Wiping Cloth
30	TCAUS0057AWZZ	J		Label,Main System Caution
31	TCAUS0055AWZZ	J		Label,Amp Caution [Except for U.K.]
31	TCAUS0056AWZZ	J		Label,Amp Caution [For U.K.]
32	TCAUS0058AWZZ	J		Label,Amp System Caution
33	SPAKF0003AWZZ	J		Case,Operation Manual [Except for U.K.Only]
34	SPAKF0004AWZZ	J		Case,Accessories [Except for U.K.Only]

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~9	92LPWB3665MANS	J	—	Main/Jack/CD Switch/MD Switch/ OPEN/CLOSE Switch/Socket/ MD Sensor/LED A/LED B (Combined Ass'y)
PWB-B1~4	92LPWB3665PWRS	J	—	Power Trans/Power/Terminal/ Amp LED (Combined Ass'y)
PWB-C	92LPWB3514MDS	J	—	MD Main
PWB-D	92LPWB3665AMPS	J	—	1-Bit
PWB-E1,2	QPWBF0554AWZZ	J	AD	MD Mechanism Switch/MD Loading Motor (PWB Only)
PWB-F	9HGHBS-501-100	J	—	CD Servo (Supplies at Ref No.267-6)

OTHER SERVICE PARTS

QCNWK0108AFZZ	J	AL	Extension Flat Cable (28Pin)
QCNWK0109AFZZ	J	AH	Extension Flat Cable (5Pin)
QCNWK0129AFZZ	J	AG	Extension Connector (2Pin)
QCNWK0130AFZZ	J	AP	Extension Flat Cable (6Pin)
RRCDT0101AFZZ	J	CB	Test Disc,Low Reflection
RRCDT0103AFZZ	J	BK	Head Adjusting Transparend Disc
RUNTK0532AFZZ	J	BK	Extension PWB for Service
88GMMD-213AS	J	BT	Low Reflection Disc,Pre-Adjustment Mini Disc (TEAC Test MD)
88GMMD-318	J	BF	Low Reflection Disc,Pre-Adjustment Mini Disc (TEAC Test MD)

CP-NX10H

SPEAKER BOX PARTS

901	92LBA705A-R	J	BF	Front Panel,Right
902	92LBA705A-L	J	BF	Front Panel,Left
903	92LBX666-R	J	BK	Speaker Box,Right
904	92LBX666-L	J	BK	Speaker Box,Left
905	92LDL1694	J	AH	Duct
906	92LDLAS1688	J	BD	Net Frame Ass'y
907	92LDL1689-R	J	AY	Leg Cabinet,Right
908	92LDL1689-L	J	AY	Leg Cabinet,Left
909	92LDL1690A-R	J	AY	Cover,Right
910	92LDL1690A-L	J	AY	Cover,Left
911	92LDL1691A	J	AZ	Top Cover
912	92LDL1692	J	AR	Spacer,Woofer
913	92LAS510A	J	AL	Sound Absorber
914	92LWS2944	J	AC	Catching Holder
915	92LWS2951	J	AD	Cushion,Leg

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
916	92LWS2955	J	AG	Cushion
917	92LWS2956	J	AG	Tape,Adhesive Double-Coated
918	92LTP661	J	AK	Terminal,Speaker
919	92LNTAS282A	J	BF	Net Work Ass'y
920	92LSRTD4B12F	J	AB	Screw,ø4×12mm
921	92LSRTF4B16F	J	AC	Screw,ø4×16mm
922	92LSRTF4B40F	J	AC	Screw,ø4×40mm
923	92LNP-Y219H	J		Label,Specifications
924	92LWS2973	J		Tape,Himelon
925	92LWS2973A	J		Tape,Himelon
SP1~4	92LW1050A0N	J	BH	Woofer
SP5,6	92LTW3184A0	J	BK	Tweeter

ACCESSORIES/PACKING PARTS

1	92LFB1590	J	AR	Speaker Cord Set
2	92LPCE02223APA1	J		Packing Add.,Top,Speaker
3	92LPCE02223APB1	J		Packing Add.,Bottom,Speaker
4	92LPCE0223A-D	J	AG	Pad,Speaker
5	92LTB695	J	AK	Polyethylene Bag,Speaker

SD-NX10H

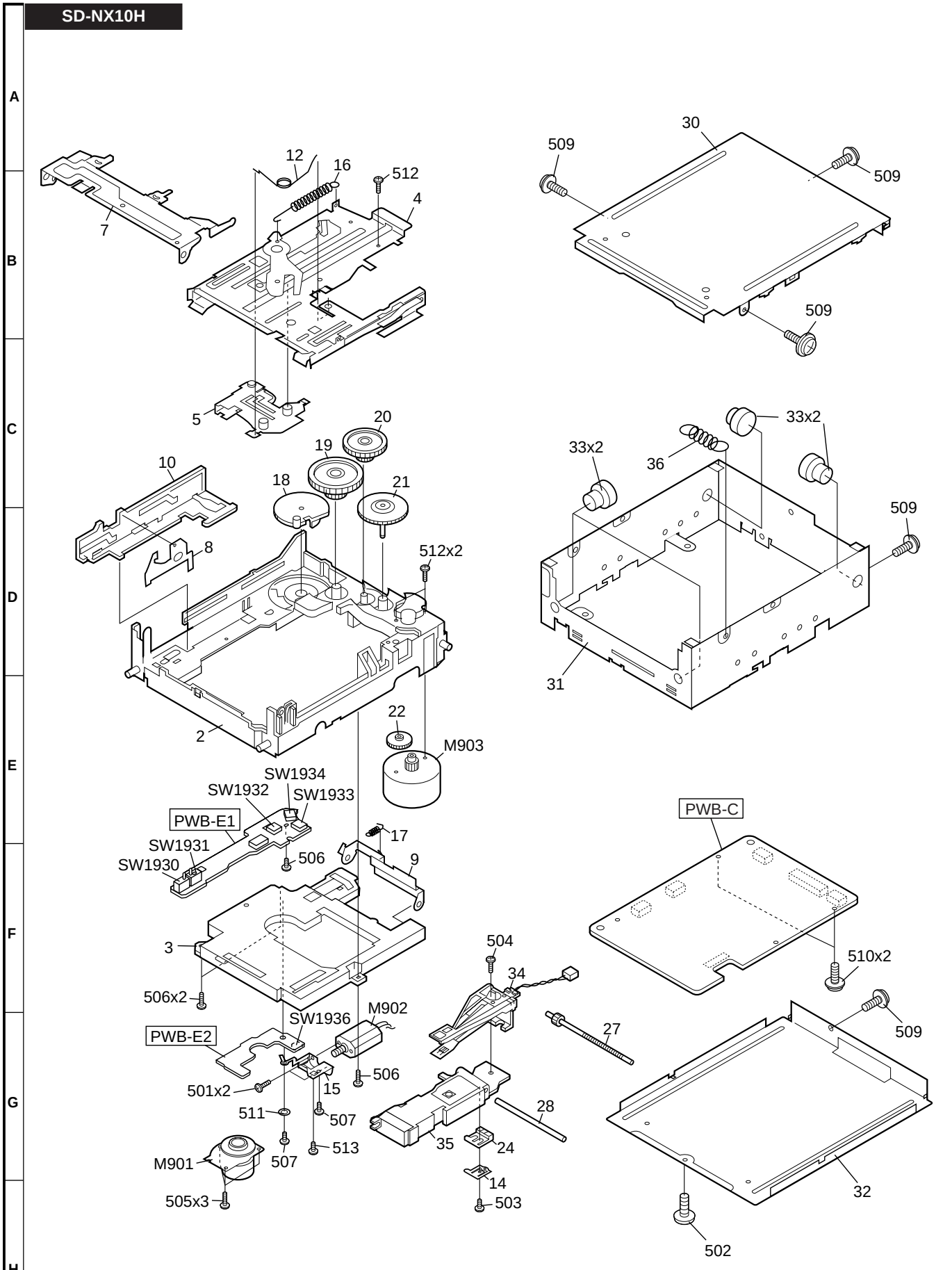


Figure 10 MD MECHANISM EXPLODED VIEW

SD-NX10H (MD/CD/TUNER UNIT)

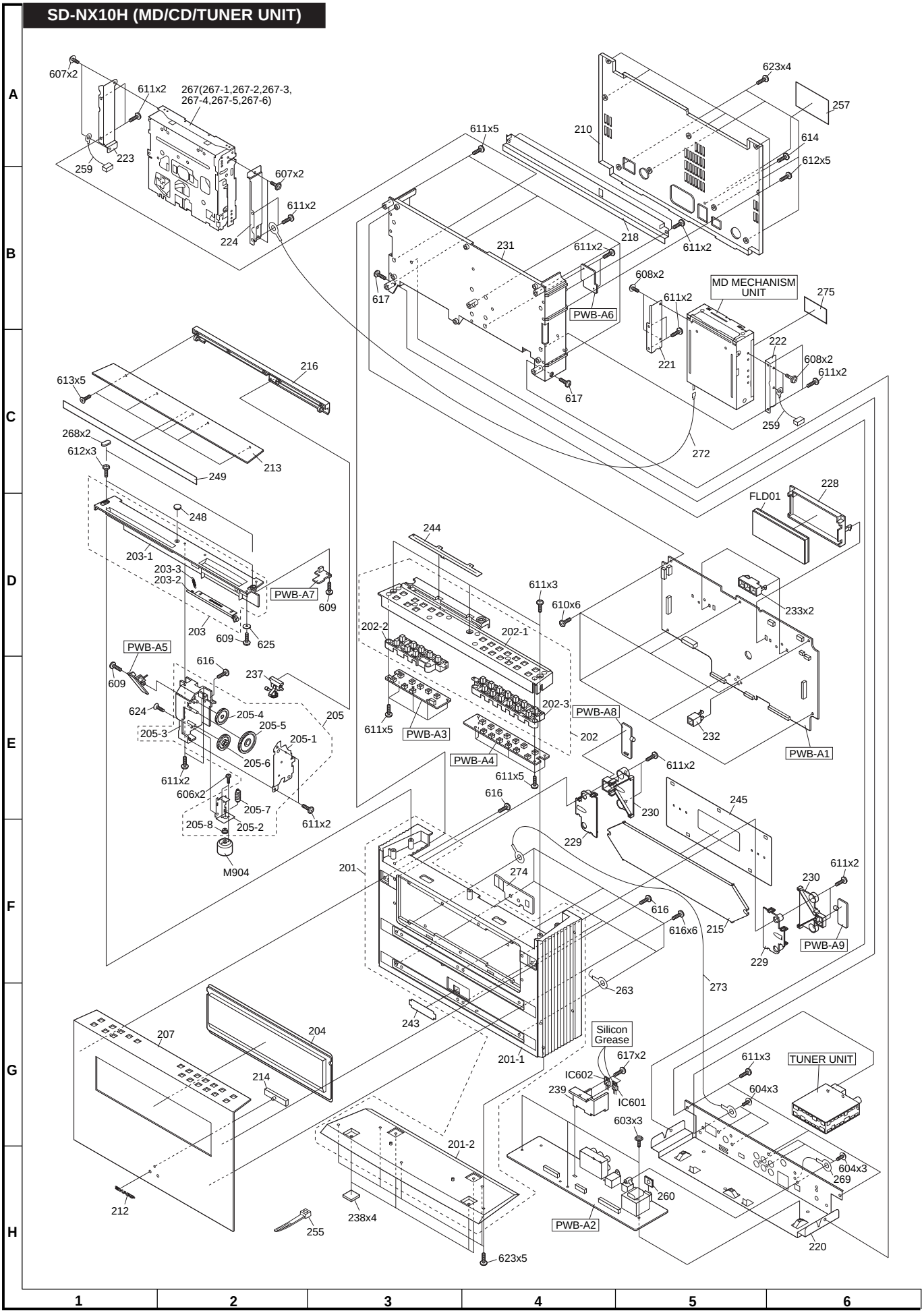


Figure 11 CABINET EXPLODED VIEW (1/2)

SD-NX10H (AMPLIFIER UNIT)

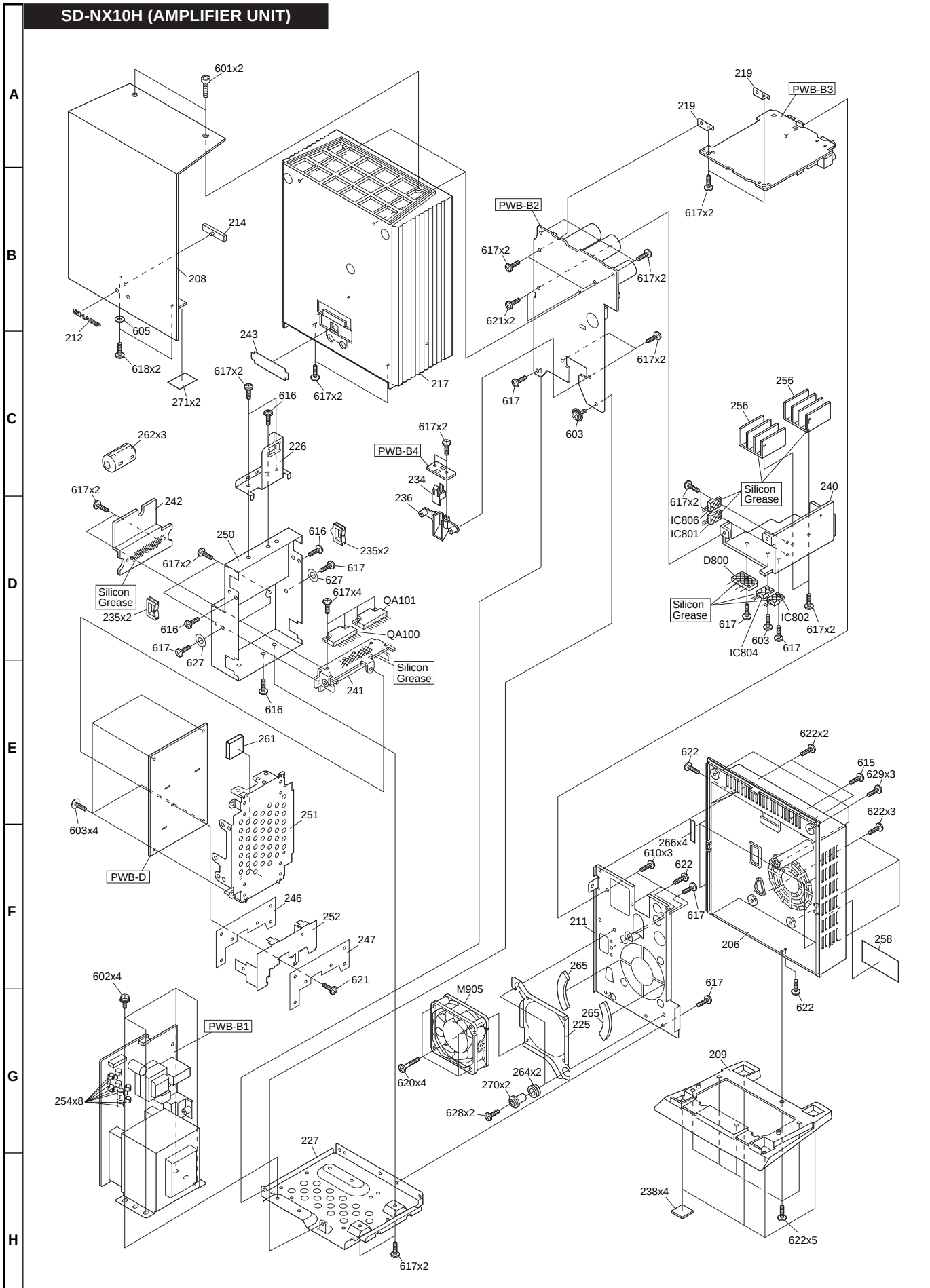


Figure 12 CABINET EXPLODED VIEW (2/2)

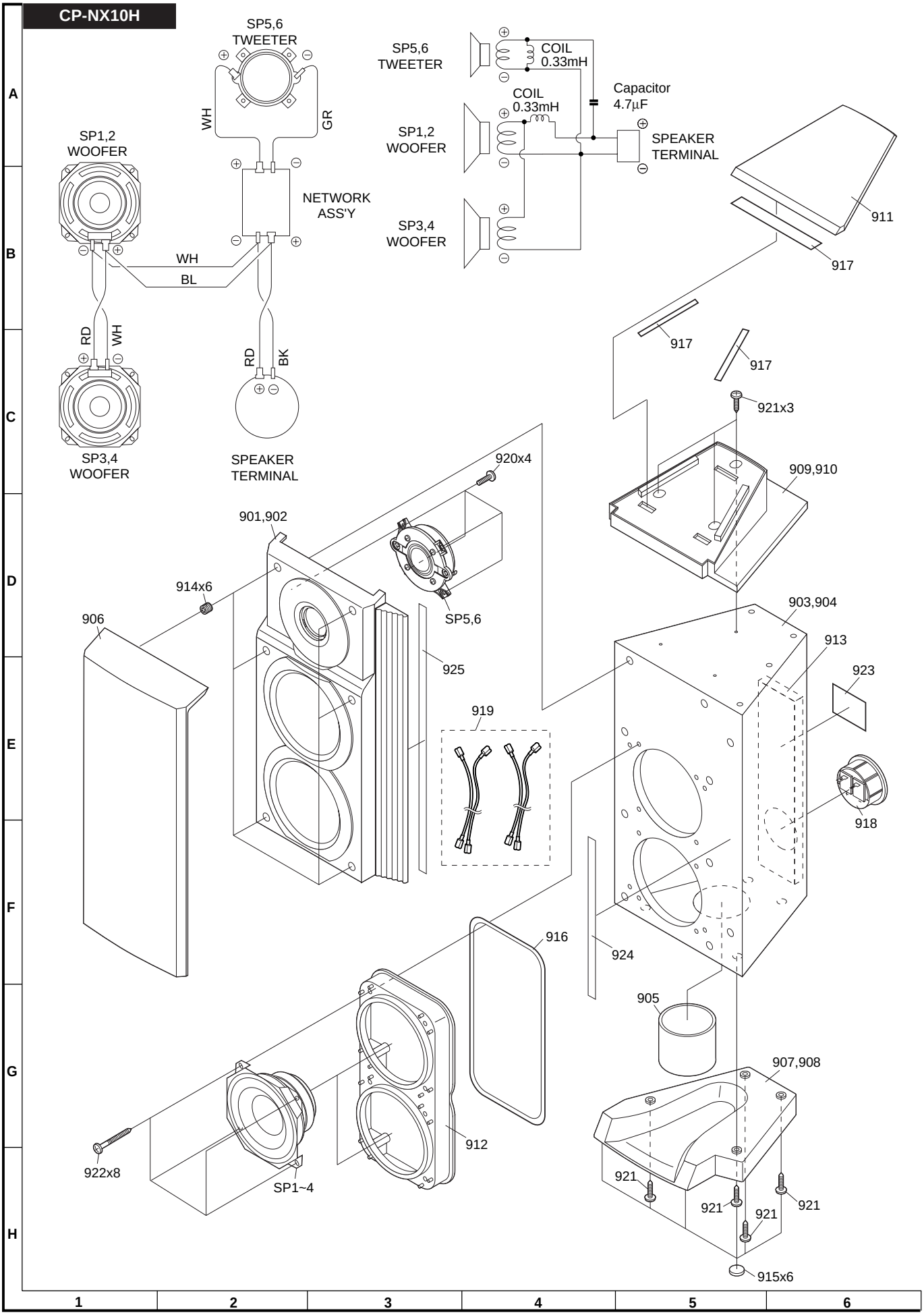


Figure 13 SPEAKER EXPLODED VIEW

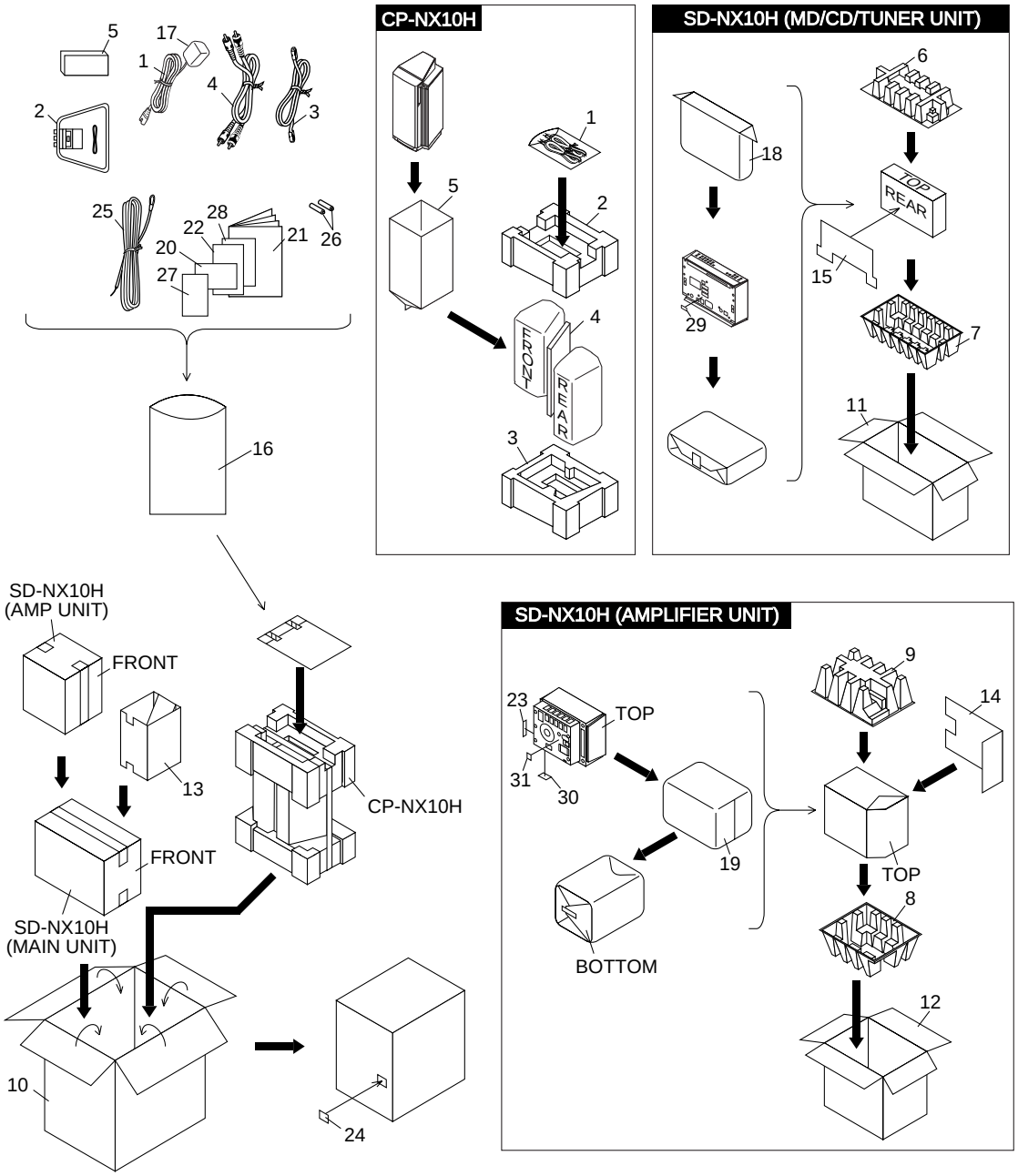
PACKING METHOD (FOR U.K. ONLY)

SD-NX10H

1. AC Power Supply Cord	QACCB0008AW00
2. AM Loop Antenna	QANTL0012AWZZ
3. System Cord	QCNWG0027AWZZ
4. Pin Cord	QCNWG0031AWZZ
5. Remote Control	RRMCG0256AWSA
6. Packing Add.,Top (Main)	SPAKA0276AWZZ
7. Packing Add.,Bottom (Main)	SPAKA0277AWZZ
8. Packing Add.,Left (Amp)	SPAKA0278AWZZ
9. Packing Add.,Right (Amp)	SPAKA0279AWZZ
10. Packing Case	SPAKC1187AWZZ
11. Inner Packing Case (Main)	SPAKT0024AWZZ
12. Inner Packing Case (Amp)	SPAKT0025AWZZ
13. Packing Add.,Accessories	SPAKZ0685AWZZ
14. Packing Add.,Front (Amp)	SPAKZ0688AWZZ
15. Packing Add.,Rear (Main)	SPAKZ0689AWZZ
16. Polyethylene Bag,Accessories	SSAKA0007AWZZ
17. Polyethylene Bag, AC Power Supply Cord	92LBAG1770A
18. Polyethylene Bag (Main)	SSAKH0046AWZZ
19. Polyethylene Bag (Amp)	SSAKH0047AWZZ
20. Resistration Card	TGAN-3170UMZZ
21. Operation Manual	TiNSE0363AWZZ
22. Quick Guide	TiNSE0364AWZZ
23. Label,VM No. (Amp)	TLABN0162AW01
24. Label,Bar Code	TLABE0507AWZZ
25. FM Antenna	92LFANT1535A
26. Battery	———
27. Fan Caution	TCAUZ0090AWZZ
28. Wiping Cloth	PSHEZ0123AWZZ
29. Label,Main System Caution	TCAUS0057AWZZ
30. Label,Amp Caution	TCAUS0056AWZZ
31. Label,Amp System Caution	TCAUS0058AWZZ

CP-NX10H

1. Speaker Cord Set	92LFB1590
2. Packing Add.,Top,Speaker	92LPCE02223APA1
3. Packing Add.,Bottom,Speaker	92LPCE02223APB1
4. Pad,Speaker	92LPCE0223A-D
5. Polyethylene Bag,Speaker	92LTB695



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